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An Address.[1]

By G. H. HOGG, M.D.,
Retiring President of the Tasmanian Branch of the British Medical Association.

NEARLY forty years ago a well known Edinburgh professor used to tell his students that surgery was only anatomy and common sense; I never had the courage to cross-examine him, but I am inclined to think that if I had, he might have answered, if questioned, in the words of Cicero: *"Quorum si alterum sit optandum equidem prudentiam."* "Were I to have my choice I would prefer common sense."

Although applied by the professor more particularly to surgery, how applicable to medicine in its widest field, curative as well as preventive, public as well as private!

We hear much about the advances made in modern education, but I imagine that if we reverted to that part of the older education in which logic and logical methods were taught, it would be better not only for medical thought but for the social and political future of Australia. It was to the great thinker Pythagoras who was the first of the Greeks to touch on medical doctrine, that is attributed the saying:

ἰσχὺς καὶ τεῖχος καὶ ὅπλον σοφόν ἡ φρόνησις,

"Common sense the strength, the fortress and armour of the wise man," and common sense was the most striking feature in the school and in the teachings of Hippocrates, so that many of these have become to-day not only aphorisms of medicine but household words, for instance: "Life is short and art long"; "for extreme diseases, extreme methods of cure"; "the *facies Hippocratica*."

Consider for a moment the tremendous hardships against which these early physicians laboured, "without the vast scientific heritage that is in our hands, without any equipment, surrounded by all manners of bizarre oriental religions and weird superstitions and above all urged by the exuberant genius for speculation of the Greeks whose intellectual temptations they shared," they remained, nevertheless, patient observers of fact, sceptical of the marvellous and the unverifiable, hesitating to theorize beyond the data, making careful and constant return to verification from experience.

Can we say that, like them, we abstain carefully from theorizing and are content largely with observing, not deceived by false hopes nor led aside by vain theories and traditions?

We may smile at the theories of our ancestors, whether physiological or pathological, but are our own much better? Do we not see the old doctrines of the humours peeping out from time to time in some of our present day medicine?

Lister, to whose genius was added an abundance of common sense, is known to have been amazed at the follies of some of the ritualists of the post-Listerian priesthood.

Some of you may remember the writings of the late Dr. Haig in which with a wealth of chemistry, formulæ, experiments and clinical observations he traced the cause of rheumatism, gout, high blood pressure, Bright's disease, epilepsy, anæmia, bronchitis, mental and other diseases to uric acid. Today his name is fast being forgotten and the same diseases are proved to be due to focal infection as conclusively as Haig proved them due to uric acid; indeed when I read only recently a discussion on chronic sepsis as a cause of the psychoses, my memory carried me back to Haig's arguments on uric acid as a cause of mental disease.

In both cases too much theorizing, too little common sense.

No one denies the good effected by Dr. Hunter in his years of research on septic infection, but has not the theory of focal infection been exalted into a dogma with a ritual sadly lacking in common sense?

The teeth, the tonsils, the appendix, the gall bladder, the prostate, the uterus, nay even the gut, are to be ruthlessly extirpated as the seats of evil. If the removal of one seat of infection proves a failure, we look wise and recommend attacking another. In the olden days often times they cured the patient by bleeding him to such a degree that he had no blood left to live with. They now purpose to cure him by removing septic foci *seriatim*, so that at length he will not have any organs left to function.

How many teeth and tonsils are vainly sacrificed on the altars of this new dogma? Who amongst us has not seen or heard of patients submitted to severe operations for the removal of what is believed to be septic foci without the slightest benefit? Certainly some of these patients have been blanched by loss of blood, but the blood letting of our ancestors by which the evil humours were allowed to escape, was a more humane method and perhaps not less efficacious. I am not denying the influence of septic infection in some cases, but I do ask that a little common sense be used in the application of this and other theories to practice.

Talking of blood letting, much might be said on this subject: known and practised by the ancients, it became so much overdone by both the "Revulsion" and "Diversion" schools that toward the middle of last century it was gradually discarded. Of recent years it has come to be realized that "bleeding" used in the proper way is a most valuable help in the treatment of certain conditions, apoplexy, high blood pressure, heart disease; two drugs it sometimes helps as nothing else does—digitalis in a distended right heart, atropine in an acute iritis. Why was this valuable therapeutic measure abused by our ancestors? Because in practice they applied their dogmas to their patients, just as we are prone to do today, without using common sense.

Of much of the bacteriological and biochemical doctrines of today I plead ignorance, comforting myself with the assurance of a well known scientist, that such deductions drawn from facts are to be

[1] Delivered at the Annual Meeting of the Tasmanian Branch of the British Medical Association on February 18, 1928.

treated only as working hypotheses liable to be changed at any time.

I can remember the war that waged between the German humouralists and the French cellulists; I can remember when the opsonic index was regarded with deferential awe and the medical man who administered a vaccine without invoking its assistance, was considered by many to be a potential poisoner.

When one glances at the theories and formulæ of the past few years one cannot help wondering how many will in time be relegated by our successors to the limbo of a dead alchemy. One feels in regard to them much as does that man of letters and distinguished *confrère* Dr. Georges Duhamel, who in his well known book of essays, says:

C'est une troublante destinée, mon ami, que celle de la médecine. Mus par un louable souci, les servants de cet art scabreux ont appelé, depuis un siècle, à leur secours, toutes les sciences dites exactes. Si bien qu'un acte médical ressemble désormais à une opération d'algèbre. Etennante opération dans laquelle erre, balloté de-ci, de-là, un facteur presque entièrement composé d'inconnues irréductibles.

As for the patient:

La fréquentation des chiffres lui donnait des espérances déraisonnables et lui inspirait des prétentions indiscrètes. . . . On m'a fait, disait-il, la constante d'Ambard. On a extrait la racine carrée de D. J'ai verifiée l'opération moi-meme. Je devrais aller mieux. Je vais plus mal.

In the presence of some of you who, I know, have made endocrinology your study, I feel some diffidence in alluding to the endocrine glands and to glandular therapy, but I must say that when I read some of the brochures issued thereon by some of the chemical firms, I feel that I am back almost in the days of the witches, who in their cauldrons brewed their curative and rejuvenating broths from pluriglandular ingredients.

Is it true that *"pour être efficace notre métier doit garder quelque odeur de sorcellerie"?*

How little do we know about the glandular system! Yet how ready are we to spin theories and to deceive ourselves by phrases and formulæ! In regard to one gland, the thyreoid, I would like to utter one word of protest. While some Australian surgeons have done and are doing excellent work on the thyreoid and one in particular, Dr. Dunhill, possesses a worldwide reputation, his common sense allied to his skill is unfortunately not the possession of all who attempt such work and here in Tasmania one sees from time to time what I can only call the butchery of the thyreoid gland, a practice not, I am sure, approved of by this Association, of removing thyreoids without any justification. The unknown but profound influence which the thyreoid exerts in the human economy alike in health and in disease, should make the rashest pause before embarking on the operation of thyreoidectomy, but I regret that of a certain number of these practitioners it may be justly said, "from a body of which they know little, they remove a gland of which they know less." In obedience to the scriptural injunction, "to consider the beam in thine own eye before beholding the mote in thy brother's," I have touched first on some of our own weaknesses; were I not concerned with the *re medica* instead of the *re publica*, I might dilate upon the lack in the Australia of today of that common sense described by Pope as "altho' no science fairly worth the seven."

Adhering, however, to the *re medica*, with your permission I would like to say a few words about medicine, viewing it from the public standpoint, for we must realize that having ceased to be merely a healing art and having become a science of prevention, it has been brought into a more intimate relationship with the community and the State.

Many years ago, when the late Sir John McCall was Chief Secretary, an excellent *Health Act* was passed and a chief health officer was appointed who did good work in laying the foundations of public health administration in Tasmania.

After his departure political influences began gradually to dominate the situation, so that in time the question became not one of the health and welfare of the people, but of political expediency.

For some years now there has been no chief health officer nor proper health or hospital administration. There has been no attempt to coordinate the various powers and responsibilities of the supreme health authority.

In this relation there are to be considered: infectious diseases, general hospitals, infectious diseases hospitals, tuberculosis, medical inspection of schools, medical treatment of school children, dental treatment of school children, mental deficiency, mental hospitals, maternity hospitals, antenatal welfare, post-natal welfare, venereal disease.

In all of these work is being done without any proper coordination and often without any proper supervision.

It would take me too long to explain the need for control and coordination of all these services and it is unnecessary to do so before an audience of professional men like yourselves, but it does seem necessary to urge our politicians and our government to use common sense and to consult the matured opinion of the profession on this and cognate subjects. There is a pressing need to establish proper coordination and cooperation between our public hospitals and the various ancillary services which I have mentioned and to pool the knowledge, the experience and the skill of the profession. Nowhere is this pooling more necessary than in our city hospitals.

It seems strange how those who are responsible for the management of the general hospital of this, the chief city of the State, so deliberately shut their eyes to facts. Long past is the day when at a hospital a medical man was general physician and surgeon treating all and every form of disease. The day for specialization has come long ere this and even the man and woman in the street know that fact; he or she goes to consult either the lung or heart specialist, the neurologist, the oculist, aurist or gynæcologist.

Nowhere is that specialization, not only of examination, but of research and of treatment, needed more than in a large general hospital. Common sense, if nothing else, demands the appointment of a proper medical staff in the Hobart Hospital.

Reading an old book about Tasmania of the 'forties, I found the Hobart Hospital mentioned as a medical school where students were educated and trained to be medical practitioners. What a contrast today!

Were a proper medical staff appointed, clinical instruction could be resumed and in time in association with the University a medical school could develope which would prove of great value, not only in the advancement of medical skill, but in the promotion of the health and well-being of the people of this State.

It has been said of our profession "that we are humble because of our knowledge, mighty because of our sacrifice" and I am afraid that because of our humility the ὐι πολλοὶ are only too willing to undervalue us and to forget our importance. At any rate there is much need in Tasmania for us to play a much greater part in the life of the community by directing movements to promote the common health, mental as well as physical. In the past some of the ablest university administrators in the old world have been medical men; only recently a medical man has been appointed as headmaster of one of the British public schools and I feel sure that the participation of our profession in the direction of our education and university systems apart from other forms of activity would prove of great value.

In Great Britain the Ministry of Public Health and the British Medical Association work together wholeheartedly in promoting the common weal and the present Minister of State, the Right Honourable Neville Chamberlain, has repeatedly borne witness to the fact that the greatest help in his work has been the sympathy and good will of our profession.

In contrast to all this compare the state of affairs in Tasmania; for years the Parliament of Tasmania with her ministers has viewed the profession with distrust and apparently with spite.

Our unselfish work in preventing suffering, in seeking for the cause and cure of disease, in saving life and in promoting the public welfare seems to have begotten a feeling, not of gratitude but of hate, in the hearts of politicians who have time after time wilfully misled the public.

The endeavours of the profession to maintain a high standard of medical ethics and to discountenance charletans has been represented as a form of selfish trade unionism, instead of an honest attempt to uphold the elements of morality and to protect the people against such as may callously exploit the sick and suffering for the sake of pecuniary gain.

Medical etiquette is sneered at. It is not a medical man but a critical lay writer who says: "Medical etiquette is the salvation of the patient. It is the one thing which stands between him and the dangers of exploitation."

Medical etiquette is based largely on the principles embodied in the Hippocratic oath and this oath is founded on morality and on the common sense view that the interests of the patient and his family are to be safeguarded.

Its ethical principles have been respected equally throughout the ages by the followers of Moses, of Mahommed and of Christ, until a Tasmanian government and a Tasmanian parliament found its ethics to be out of date and its morals to be out of fashion.

In their attempts to misrepresent the medical profession, to attack their moral code and to weaken their influence successive Tasmanian governments have shown their lack of common sense, for they have failed to realize that by injuring us they are injuring the State and its citizens. Vain of their socialistic beliefs and their socialistic policies, they are apparently ignorant of what Sydney Webb, himself a great socialist, has written: "It is necessary for the community that there should be a strong, competent and adequately remunerated medical profession."

I am afraid that you are wearying of an address full of words and naught else. Should it contain even a grain of common sense, this may serve, I hope, as an excuse for lack of knowledge.

Before sitting down I would desire to thank you for having elected me as your President for the third time; to feel that one has the confidence of one's professional brethren is indeed a great honour.

To the Vice-President, the Council and the two gentlemen, Dr. Brettingham Moore and Dr. Giblin, who have filled the position of Secretary, I am indebted for valuable assistance and to them my thanks are due.

WILLIAM REDFERN, THE FIRST AUSTRALIAN MEDICAL GRADUATE, AND HIS TIMES.[1]

By Norman J. Dunlop, B.A., M.B., F.R.A.H.S.,
Sydney.

William Redfern was a convict. It would be, perhaps, nearer the truth if we called him a martyr. He may have been indiscreet on one occasion in his youth, but he was never a criminal and always a gentleman.

In 1797, a youth of nineteen years of age, he was surgeon's mate on His Majesty's Ship *Standard*, one of the ships that participated in the Mutiny at the Nore. This outbreak occurred within a few months of "the Great and Glorious Victory off Cape St. Vincent," when the names of our captains and the deeds of our bluejackets were the talk and pride of all England. Although "our ships were British oak

[1] Read at a meeting of the Central Northern Medical Association on November 24, 1927. This article is being published in the March issue of the *Journal and Proceedings of the Royal Australian Historical Society.*

and hearts of oak our men" and although "we scorned the foreign yoke," all was not well with the Navy. For some injudicious remarks at that time Redfern found himself in the valley of the Shadow of Death; he was condemned to be shot. His youth, however, saved him and the sentence was commuted to penal servitude for life.

Some of the Conditions that Led up to the Mutiny at the Nore.

We all profess to be proud of "our boys of the bulldog breed that made old England's name"; but have we given them always a fair deal or vouchsafed to them that consideration that is or should be their just due? The conditions in which "poor Jack" lived and moved and had his being in the eighteenth century were deplorable. Hygiene and dietetics, the two things needful for keeping men fit, contented and well, were ignored by the heads of the Navy. It is true that Captain Cook demonstrated in a striking way what could be done by these means, but demonstrations and even arguments are seldom sufficient to bring about reforms, be they ever so urgent or necessary. The sailors' place of abode was dark, damp, badly ventilated, dirty and evil smelling. In winter it was dark, damp and cold; in summer it was dark, hot and wet. But whether it were winter or summer it was always gloomy. There was overcrowding also. The unfortunate wretches were herded together like sheep in a railway truck. If their place of abode was deplorable, their food was execrable. The water served out to each man was often foul and always insufficient for his requirements. The bread was unwholesome and hard as flint. It went to sea in the form of biscuits, composed of flour, water and an adulteration of all sorts of inferior materials. That was bad enough, but it was not the whole story. The biscuits went from ship to ship and from station to station, till at length from age and neglect the original mixture of which they were made, became transformed into nothing more than discs of rottenness and weevils. The beef, pork and pickled horse were indurated by an excess of salt. The allowance of meat to each sailor was by a naval regulation a pound per day; but the quantity actually received was rarely over one-third of that amount. The meat was practically devoid of nutriment, wholly without flavour and so hard that it could take a polish like agate or cornelian. Small quantities of decayed cheese and rancid butter were found occasionally, but not generally in the diet list. Rum, crude and immature, was a delicacy to be served out on rare occasions only.[1]

In addition to the hardships due to bad quarters and worse food, the bluejackets had to endure many others, of which none was great, but each of them corroding. Naval discipline was far too rigid and irritating; shore leave and other concessions depended entirely on the whim of some petty tyrant.

[1] The information given here of the conditions in the Royal Navy at the time of the mutiny at the Nore is taken chiefly from "Celebrated Naval and Military Trials," by Peter Burke, Sergeant at Law, and "Great Historical Mutinies," by David Herbert, M.A.

The pay in the Navy had not been increased for a hundred years or more, although the cost of living had gone up considerably. The pension allowance, too, totally inadequate, had remained unchanged for an equal period. Finally there were the raids of the pressgang, that terror that stalked by night. The method of obtaining men for the Navy by means of the pressgang was unjust and cruel. It led frequently to much hardship and suffering. Not all the incidents connected with the work of the "gang," however, were tragic. The story of the adventure of the young "snotty" who, during the progress of his first raid with the "gang" got separated from his companions and fell into the hands of a number of lewd women of the baser sort is distinctly humorous. Tobias George Smollett, himself a naval surgeon, gives us in "The Adventures of Roderick Random" a graphic description of one phase of the life in the Royal Navy about this period. The picture is undoubtedly fanciful, but are the details given very much overdrawn? Roderick's story runs on:

> In the morning after the captain came on board, our first mate (assistant-surgeon), according to custom, went to wait on him with a sick list, which when the grim commander had perused, he cried with a stern countenance: "Blood and oons! sixty-one sick people on board my ship! Harkee, Sir, I'll have no sick in my ship, by God!" The captain then ordered the patients to be sent to him on the quarter deck to be reviewed. The first who came under his cognizance was a poor fellow just freed of a fever which had so weakened him that he could hardly stand. Mr. Mackshane, the surgeon (a newcomer on board the ship and a tool of the captain) felt his pulse and protested he was as well as any man in the world and the captain delivered him over to the boatswain's mate with orders that he should receive a round dozen at the gangway immediately for counterfeiting himself sick; but before the discipline could be executed the man dropped down on the deck and had well nigh perished under the hands of the executioner.
>
> The next patient to be considered laboured under a quartan ague and being in his interval of health, discovered no other symptoms of distemper than a pale meagre countenance and emaciated body; upon which he was declared fit for duty and turned over to the boatswain, but being resolved to disgrace the doctor died upon the forecastle next day during a cold fit. The third complained of a pleuritic stitch and spitting blood; for which Dr. Mackshane prescribed exercise at the pump to promote expectoration; in less than an hour he was suffocated with a deluge of blood that issued from his lungs. A fourth with much difficulty climbed to the quarter deck being loaded with a monstrous ascites or dropsy, that invaded his chest so much he could scarce fetch his breath; but his disease being interpreted into fat occasioned by idleness and excess of eating, he was ordered, with a view to promote perspiration and enlarge his chest, to go aloft immediately. It was in vain for this unwieldly wretch to allege his incapacity; the boatswain's driver was commanded to whip him up with a cat-o'-nine-tails; the smart of this application made him exert himself so much that he actually arrived at the futtock shrouds; but when the enormous weight of his body had nothing else to support it than his weakened arms, he quitted his hold and plumped into the sea where he must have been drowned had not a sailor who was in a boat alongside saved his life by keeping him afloat till he was hoisted on board by a tackle. It would be tedious and disagreeable to describe the fate of every miserable object that suffered by the inhumanity and ignorance of the captain and surgeon, who so wantonly sacrificed the lives of their fellow creatures. Many were brought up in the height of fevers and rendered delirious by the injuries they received in the way. Some gave up the ghost in the presence of their inspectors; and others

who were ordered to their duty languished a few days at work among their fellows and then departed without any ceremony. On the whole the number of the sick was reduced to less than a dozen.

From whatever source our information is gained, be it from history or fiction, one fact is borne in upon us: the lot of the eighteenth century sailor was hard and oppressive. The groans and complaints of the poor wretches must have reached the ears of the authorities time and again; but the official ears were either deaf to or misinterpreted the significance of the murmurings. In the year 1797 the crisis was reached; first at Spithead and later in May at the Nore the men of the Navy, normally loyal and docile, ran amok. Their powers of endurance had become tattered and threadbare, so they succumbed readily to the insane virus of insurrection. However wrong were the methods used to gain relief from a galling load, the risings at Spithead and at the Nore most effectually directed public attention to the gross abuses existing in the Navy. One of the results of the mutiny was a slight increase in the population of New South Wales.

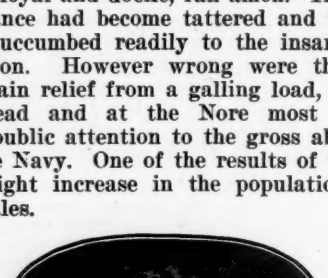

FIGURE I.
Dr. Redfern.

William Redfern: Early Years.

The exact date on which Redfern was born is not known. Five different years, ranging from 1770 to 1778, have been given by as many different authorities as his birth year. They cannot be all correct. J. T. Bigge, the Commissioner, tells us[1] that at the time of the mutiny at the Nore, Redfern was about nineteen years old. We can reasonably accept this age as correct, for the Commissioner got this information direct from Redfern himself. In that case Redfern was born in the year 1778. Where he was born is equally uncertain. Possibly it was in Wiltshire, in England; but that is only conjecture. Nothing is known of his schooldays. We are told[2] that he studied for the medical profession and passed the examination of the Company of Surgeons, London, the predecessor of the Royal College of Surgeons, but did not receive a diploma. It is within the range of possibility that Redfern received the whole or part of his professional training in Edinburgh, Scotland. This again is speculation, but there are some points in favour of this statement: Mr. R. H. Antill, of Jarvisfield, Picton, New South Wales, a grandnephew of William Redfern, has in his possession two of the doctor's textbooks.[1] Again it was to Edinburgh that Redfern took his son when the lad was sufficiently old to benefit by a grammar school education.

Redfern After the Mutiny.

After the mutiny Redfern spent four years in an English prison; then at his own request he was exiled to Australia.[2] He left England about the middle of the year 1801, arriving at Sydney on December 14. He travelled either by *Canada* or *Minorca*. The ships *Minorca, Canada* and *Nile* left England at the end of May or the beginning of June, 1801. The *Nile* was reserved for female convicts; the *Canada* and *Minorca* had male prisoners only. After a short stay in Sydney, Redfern was sent to "that compendious and concentrated hell, Norfolk Island," where he assisted the surgeon and superintended the work at the hospital. Within two years of his arrival in New South Wales he received an absolute pardon from Governor King. This was on June 19, 1803. The *Sydney Gazette* under that date, on page 4, contains the following:

NOTICE.

WHEREAS His Excellency was pleased to Grant Free Pardon and Conditional Emancipations to the following persons on His Majesty's late Birth Day, some of them have not yet received them; notice is hereby given that such as are included in the following list may have their respective Deeds on Application at the Secretary's Office.

D. D. MANN, Clerk.

Free Pardons.

William Redfern,

. . . . . .
. . . . . .
. . . . . .

At Norfolk Island Redfern showed of what metal he was made. The excellence of his work, his practically unlimited capacity for work and his good conduct attracted the attention of the Lieutenant-Governor, Colonel Foveaux, who at the earliest opportunity strongly recommended this young man for the position of assistant surgeon on the colonial

[1] Dr. Smellie's work dedicated "To the students of midwifery in the University of Edinburgh." "The Anatomy of the Human Body," by John Bell, Surgeon. Dr. Bell was another Edinburgh teacher.

[2] "Mr. Redfern in consequence of the mutiny at the Nore in 1797 was, at his own particular request to Sir Jeremiah Fitzpatrick, then Inspector of the Transport Service, sent to this Colony in 1801. During the passage he assisted the surgeon and kept the journal of the treatment of the sick." This statement is taken from page 38 of Governor Macquarie's brochure: "A Letter to the Right Honourable Viscount Sidmouth in Refutation of Statements made by the Hon. Henry Grey Bennett, M.P., on a Pamphlet 'On the Transportation Laws, the State of the Hulks and of the Colonies in New South Wales'." By Lachlan Macquarie, Major General and Governor in Chief of New South Wales, London. Published by Richard Rees, No. 14, Percy Street. Printed by B. McMillan, Bow Street, Covent Garden, 1821.

medical staff. Writing to Lord Castlereagh in a letter dater Sydney, September 6, 1808, Lieutenant-Colonel Foveaux[3] says:

The distress'd state of the Colony for medical aid and the expression of your Lordship's wish to provide such as could be obtained in this country has induced me to appoint Mr. William Redfern to act as Assistant Surgeon. As his skill and ability in his profession are unquestionable and his conduct has been such as to deserve particular approbation, I beg to solicit for his Confirmation.

Three weeks later, in the issue of the *Sydney Gazette* for September 25, 1808, under the caption "Government General Order" we read: "Mr. W. Redfern is appointed to act as Assistant Surgeon in the Colony and is to do duty at Sydney." When Colonel Lachlan Macquarie assumed the office of Governor of New South Wales on January 1, 1810, he recognized the need of an efficient medical service. Discovering that the acting Assistant Colonial Surgeon was a man of capacity and worth, he did what he could to secure the confirmation of his appointment. In his first dispatch to Viscount Castlereagh, dated Sydney, New South Wales, March, 1810, the Governor urged the claims of William Redfern corroborating the testimonial of Colonel Foveaux. "I also beg leave to recommend," he wrote, "that Mr. William Redfern, who has for some time past been acting as Assistant Surgeon in the Civil Medical Establishment of this Colony with great credit to himself and advantage to the public service may be confirmed in that situation by a commission from His Majesty."[4] Macquarie's recommendation was favourably received and Redfern's appointment as Assistant Surgeon was confirmed by Earl Liverpool, the Secretary of State, in a dispatch dated, Downing Street, July 26, 1811.[1] The position carried a salary of £136 17s. 6d.

Australia's First Medical Graduate.

In 1808, as everyone knows, Australia had neither a university nor a medical school. It did not possess even a well equipped institution where a good sound secondary education could be obtained. Yet in that year Redfern passed a qualifying examination and received a licence to practise. At the time of his appointment to the Colonial Medical Service, although he had gone through a course of medical training in England, Redfern possessed no certificate nor any other credential to prove his *bona fides*. He therefore voluntarily underwent a searching examination to test his technical knowledge. By this examination a precedent was established. From this time on for many years all those who desired to commence medical practice in New South Wales had to pass a professional examination. The name of anyone failing to pass the test was gazetted and the individual ordered to cease treating the sick and afflicted.[5] The inscription on Redfern's diploma, the first ever issued in Australia, was the following:

We whose names are hereunto subscribed do hereby testify that we have examined Mr. William Redfern touching his skill in Medicine, Surgery and other necessary collateral branches of Medical Literature, and we find him qualified to exercise the profession of a surgeon, etc., etc., consequently to fill the situation of an Assistant Surgeon in any Department of His Majesty's Services. Given under our hands at Sydney, in New South Wales, the first day of September, 1808.

THOMAS JAMISON,
Principal Surgeon.
J. HARRIS,
Surgeon, New South Wales Corps.
WILLIAM BOHAN,
Assistant Surgeon, New South Wales Corps.

This examining medical board was appointed by Colonel Foveaux.

The friendship early formed between Macquarie and Redfern matured with the passing of the years. In a dispatch,[6] dated Sydney, June 28, 1813, the Governor begged earnestly for a commission for the Assistant Surgeon. He wrote:

Mr. Redfern was appointed Assistant Surgeon by Colonel Foveaux on August 1, 1808. Mr. Redfern was appointed by Warrant by the Commissioners for taking care of the sick and wounded seamen first, as Assistant Surgeon on His Majesty's ship *Standard*, having previously undergone the necessary examination. But in order that no objection might be taken in point of professional abilities he underwent at his own request an examination here before a Medical Board appointed for the purpose by Colonel Foveaux. The Certificate of which Board was transmitted to Lord Castlereagh in a dispatch dated September 6, 1808; and in a paragraph of which dispatch Colonel Foveaux very strongly solicited the confirmation. Mr. Redfern has done duty as assistant surgeon here and at Norfolk Island from June, 1802. Lord Liverpool was pleased to confirm Mr. Redfern as Assistant Surgeon as communicated to me in his Lordship's dispatch under date July 26, 1811. He had not, however, received his commission as Assistant Surgeon and in case it has not already been made out, I have to request your Lordship will be pleased to give orders respecting it being done. I consider Mr. Redfern as a professional man a very great acquisition to the Colony. His talents as a surgeon being far superior to those of any other person of that description in the Colony and perhaps equal to those of the most skilful medical men in any other country. With such talents and such claims Mr. Redfern unquestionably looks forward to filling the highest situation in the Medical Department of New South Wales in regular rotation of seniority, being able to produce satisfactory proofs of his ability both with regard to professional abilities and character.

When Redfern arrived at Norfolk Island some time in January, 1802, Colonel Foveaux took advantage at once of his professional knowledge and dexterity. The newcomer was appointed to assist the surgeon in charge of the station. On June 19, 1802, he was given the oversight of the hospital and acted as assistant surgeon. This position he retained till May 12, 1804. Later Redfern was transferred to Port Jackson, where he acted as assistant surgeon till his appointment was confirmed on July 26, 1811.

Australia's First Hospital.

A hospital is an institution rather than a building. There were two buildings, the one succeeding the other, on the first site chosen for hospital purposes, but the institution was the same. The first hospital in Australia was erected on an area of land in George Street North, Sydney. The place is still occupied by a government institution, a police

[1] "Mr. Redfern will succeed to the situation of Assis't Surgeon vacated by Mr. Wentworth."—*Historical Records of New South Wales*, Volume VII, page 561.

station, where the moral rather than the physical ills of frail humanity now receive attention. On the front wall of this building has been placed a commemorative tablet by the Royal Australian Historical Society, carrying the following legend:

THE
SITE
of the
First General Hospital
in Australia
1788-1816
R.A.H.S.

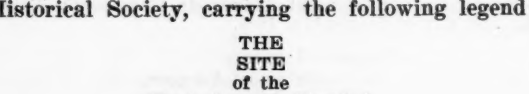

FIGURE II.
The First General Hospital at Dawes Point, 1796-1816.

The erection of the first building was commenced as early as February, 1788, and was the work of twelve convict carpenters and sixteen men loaned by the ships in harbour. The original building was demolished in 1796 and reerected on a stone foundation. In the second building the diseases and hurts of the settlers were treated till 1816 when the Rum Hospital in Macquarie Street was opened. Redfern began his Australian career in the 1796 hospital. It is interesting to note in Appendix C, page 196, of "The History of the Sydney Hospital," by Dr. J. Frederick Watson, that the name of William Redfern is to be found among those of the officers in charge of the Sydney Hospital during the convict period. Some of the "First Fleet" surgeons were still hard at work in Sydney when Redfern joined the hospital staff; so he may be regarded as a link between the first beginnings and the more modern development of medical practice in this country. During a part of his term as medical attendant at Sydney Hospital, Redfern had an apprentice named Henry Cowper. This youth enjoyed the unique distinction of being the first clinical student in Australia.

The First Medical Specialty in Australia.

Undoubtedly the first medical specialty in Australia was that branch of the profession dealing with preventive medicine and hygiene. When Captain Cook was about to leave England on his first voyage in 1768, he received from the Lords of the Admiralty certain instructions that were to be carefully followed. The instructions for his surgeons only, will be mentioned. These were:

"Whereas there is great reason to believe from what doctor McBride has recommended in his book, "Experimental Essays on the Scurvy and other Subjects" and in his pamphlet entitled "An Historical Account of the New Method of Treating the Scurvy at Sea" (of which you will hereafter receive copies) and from the opinion of other persons acquainted with the scorbutic disorder, that malt made into wort may be of great benefit to seamen in scorbut and other putrid diseases; and whereas we think fit experiments should be made of the good effects of it in your present intended voyage . . . The surgeon is to keep an exact journal of the effects of the wort in scorbutic and other putrid diseases not attended with pestilential symptoms, carefully and particularly noting down, previous to its administration, the cases in which it was given, describing the general symptoms and relating the progress and effects from time to time; which journal is to be transmitted to us at the end of the voyage."(7)

The doctors who sailed with Captain Cook, Surgeons Monkhouse and Perry, were principally public health officers. The chief work of the first fleet surgeons was in the department of preventive medicine. They realized that it is better to put a fence on the edge of a precipice, than to build a hospital at the bottom of it. From 1788 to the present time the specialty has been growing and developing. At first it was a portion only of the work of the colonial surgeon; later certain doctors with special knowledge were set apart as whole time public health officers.

From insignificant beginnings great institutions for the prevention of disease and the preservation of public health have sprung. The term public health embraces now such a vast field of action that no one individual can be an expert in every phase of it. The original specialty has become split up into a number of special specialties, each of them big and exacting. In the year 1814 an event occurred of prime hygienic importance. Three ships, the *General Hewit*, the *Surrey* and *The Three Bees* arrived in Sydney each with a deplorable tale to tell of disease, suffering and death. On one of these ships, the *Surrey*, there had been upwards of fifty deaths from preventible disease, the result of ignorance, incompetence and neglect. The casualties included the captain, the first and second mates and the surgeon. The colony was shocked when the tidings of the catastrophe reached the people. The Governor ordered the assistant surgeon to make a thorough investigation of the case; also to report on the cause and prevention of sickness in immigrant ships, hoping to obviate a repetition of the tragedy. Redfern's report discussed the subject under five headings: clothing, diet, air, cleanliness and medical assistance. The document is too long for inclusion here, but excerpts from it will show the character of the whole. In this report Redfern demonstrated that he was an accurate observer and a wise counsellor. His remarks on the attainments of the ships' surgeons were apposite. These men were incompetent from their age, ignorance or intemperance, very often from all three. "They are," it is pointed out in the report, "either students straight from the lecture rooms or men who have failed in the respective lines of their profession."(8) As a remedy it was suggested that well trained naval surgeons, each supreme in his own department and independent of the captain, should replace those

derelicts who had masqueraded till then as surgeons. Redfern's recommendation was favourably received and immediately carried into effect by the authorities. Then fate, that capricious jade, played one of her extraordinary tricks. One of the first surgeons to arrive in New South Wales under the new *régime* was James Bowman who later succeeded to the position Redfern had considered his own by right.

Redfern's remarks on gaol fever, its ætiology and infectiousness, are worth noting. As an introduction he states his *confessio fidei* concerning fresh air.[9] "Air, the great pabulum of life, without which existence can scarcely be maintained for a minute." Then he goes on:

> The bodies of men when closely confined in considerable numbers possess a power of generating a most subtle poison, the nature is not cognizable, but in its effects not only injurious and deleterious to the bodies of those by whom it is generated, but spreading baneful influence far and wide among all who come within the sphere of its action is fully evinced by many lamentable instances on record. The case of Mrs. Howitt and others who escaped from the Black Hole of Calcutta and were afterwards seized with the fever which was generated during their confinement and the seeds[1] of which were carried with them is a proof of the first part of this position; and the second will be equally certified by the relation of one of the most striking instances of the kind on record, which happened on the 11th of May, 1750. At the Old Bailey the prisoners were kept for nearly a whole day in small, ill-ventilated and crowded apartments. Some of them laboured under jail fever; when they were brought into court the windows at the end of the hall opposite to the place where the judges sat were thrown open, the people on the left of the court on whom the wind blew were infected with fever, while those on the opposite side escaped. The Lord Chief Justice and the Recorder who sat on the Lord Mayor's right hand escaped, while the Lord Mayor and the rest of the Bench who sat at his left were seized with the distemper. Many of the Middlesex jury on the left side of the court died of it, while the London jury who sat opposite to them received no injury.

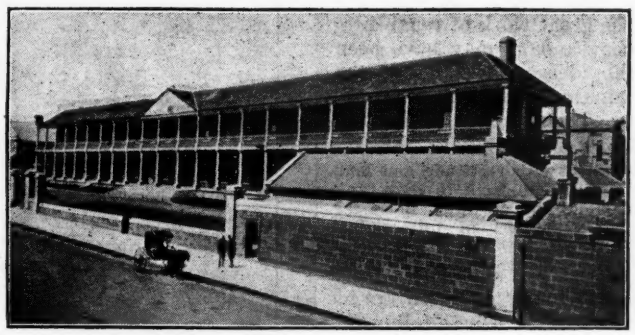

FIGURE III.
The "Rum" Hospital, Macquarie Street, opened 1816.

But why should we go so far back and quote cases in proof of that of which we have got a melancholy instance before our eyes. In the transport *Surrey* the poison was generated by the close confinement of the convicts in the prison. It diffused its malignant influence through every part of the ship and spared none who came within the sphere of its action. With the knowledge of the day this part of Redfern's statement was an excellent exposition of cause and effect. It was clear, logical and convincing. The report concluded with the following recommendations:

> (1) That more warm clothing be provided for the winter passage.
>
> (2) That more regard be directed towards personal cleanliness by facilitating the means of washing and cleaning their persons and dress.
>
> (3) That cold affusions be employed as largely as possible.
>
> (4) That the masters of transports be prohibited from purchasing or exchanging, unless by direct instructions from the Transport Board, any part of the rations of the convicts.
>
> (5) That a different distribution or rather an increase of the quantity of the convicts' wine be provided for.
>
> (6) That no reduction, unless under peculiar circumstances, of the regulated allowance of water be suffered.
>
> (7) That no part of their rations or articles of comfort be surreptitiously or fraudulently withheld.
>
> (8) That in order to prevent the generation of contagion it is absolutely necessary that the convicts with their bedding should be admitted every day, when the weather will permit, on deck for a certain time; the longer the better.
>
> (9) That the prison hospital be regularly cleaned and fumigated with nitric or muriatic acid in a gaseous state; that the fumigation be as perfect and as general over the ship as possible; well airing and drying the prison before the convicts are sent below.
>
> (10) That for the better preservation of the health of the convicts more eligible medical attendants and on a different establishment be provided.
>
> (11) That an agent for transports be sent out in whose person might be combined the two offices of agent and principal medical officer, invested with powers to cause the necessary regulations to be carried into effect.

At the end of the report in a few sentences the author gives us a valediction: "If, however, anything contained herein be the means of throwing any additional light on the management of the convicts and by giving more effect to the benevolent intentions of His Majesty's Government of ameliorating their condition or be the means of saving the life of a single individual, I shall feel more than amply compensated for any pains I have bestowed on the subject." The report was dated September 20, 1814.

Vaccination as a prophylactic against small pox has been practised in Australia since the earliest years of the nineteenth century. It was introduced to New South Wales in 1803 by John Savage, a friend of Edward Jenner. Redfern vaccinated the Governor's son, Lachlan Macquarie, twice, once unsuccessfully from arm to arm and once with fresh calf lymph, when the operation was successful.

Concerning Emancipists.

The emancipists formed an important part of the community in the earlier years of Australia's history. The term "emancipist" was applied to any individual who had been, but no longer was a convict. It mattered not how he had gained his freedom; whether by the expiration of the sentence

[1] Redfern is here anticipating modern research.

he was serving or by a pardon, absolute or conditional, granted by the Governor. The free settlers viewed the emancipists variously. There was one section, well-to-do and influential, of which Robert Lowe, J. T. Bigge and Lieutenant-Colonel Molle were typical, that regarded those who had served a sentence as social outcasts whose ostracism should be permanent. The enormity or insignificance of the crime committed had no weight with them: "It mattered not whether the individual was steeped to the lips in crime or innocent altogether."[1] If he had been convicted once, his social doom was sealed. Then there was another section, like Gallio, who cared for none of those things, the attitude of which was one of indifference. There was still a third section of which the Governor himself was the leader. This section desired to rehabilitate with the very best of intentions those who, by their contrition and good works, had proved themselves worthy of recognition. Curiously or rather naturally enough, this policy of redemption was vigorously opposed by the first section. The Australian Pharisee thanked his God that he was not as other men were; he would have no dealings with those emancipist publicans. Macquarie's method of carrying out the great work of rehabilitation may have been clumsy and he may have been wanting in tact, but the idea of reclaiming the members of this unfortunate class was certainly humane and commendable. The principle enunciated by Macquarie was this:

> That emancipation when united with rectitude and long tried good conduct should lead a man back to that rank in society which he had forfeited, and do away, in as far as the case will permit, all retrospect of former bad conduct.[(10)]

In other words the emancipist should be fully and freely forgiven, his past forgotten in so far as it is possible to do so and he should be eligible for any situation for which he was suited by either training or capacity. The Governor set the lead by showing hospitality to a limited number of prominent emancipists, each of whom was a man of acknowledged probity. One of those chosen for vice-regal recognition was William Redfern, assistant surgeon on the colonial medical staff. Redfern was specially favoured by the Governor by whom he was appointed medical attendant to the vice-regal household. His intimacy with Macquarie and his frequent presence at the Government House were rather a challenge to those opposed to the reception of emancipists. The attitude of the military caste towards meeting and recognizing Redfern was generally one of sullen submission. While his own old regiment was stationed in New South Wales, Macquarie could rely upon the sympathetic support of some of its officers who had been his friends and colleagues in other days. His most faithful ally and coadjutor was the major of brigade, Captain Colden Antill. This officer saw much of and shared the Governor's admiration for Redfern. The friendship between the two younger men developed later into a kinship when Captain Antill and Dr. Redfern married two sisters, daughters of Mr. Edward Spencer Wills, of Sydney and Geelong. With the departure of the 73rd regiment, Macquarie's influence with the military ceased practically. The 73rd was succeeded by Colonel George Molle's regiment, the 46th. The officers of that regiment from the Colonel down were very exclusive and infected with class prejudice. They were hostile to the Governor and strongly resented his attitude towards reformed convicts. During the whole time the 46th was stationed in New South Wales the relations between Macquarie and the soldiers were not at all cordial. At first there was just a certain aloofness and lack of social intercourse; later, the conduct of some of the officers became so offensive that the Governor refused to have any communication with the Commandant that was not strictly official. In due time the 46th was recalled, being replaced by the "Heroes of Talavera," the 48th. That regiment arrived in Sydney in August, 1817. Among the officers of the 48th there was a division of opinion as to the line of action to be adopted with the emancipists. Some of the seniors, notably Lieutenant-Colonel Erskine, Major Morisset and Major Druitt, took their cue from the Governor. They fraternized with Redfern at the Government House, accepted his hospitality and made him welcome at their quarters. Colonel Erskine even went so far as to invite the doctor to the regimental mess. At one of these mess dinners the junior officers present suddenly left the table as a protest against being asked to meet an ex-

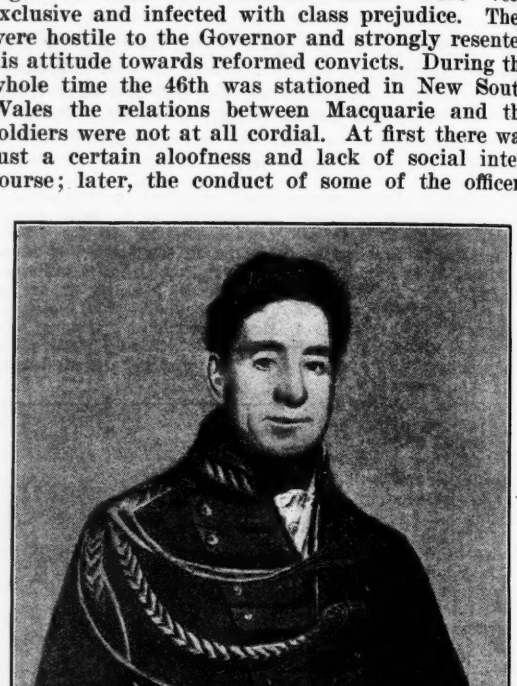

FIGURE IV.
Governor Macquarie.

[1] From Robert Lowe's speech in the Legislative Council on October 10, 1849, when he objected to Dr. William Bland, an emancipist, having a seat in the first senate of the Sydney University. The speech was published in the *Sydney Morning Herald* for October 11, 1849.

convict on equal terms. The Colonel in consequence of this behaviour framed a mess rule forbidding any one leaving the table until "the first thirds" had been drunk. The indiscriminate repudiation of the emancipists was at once unjust and cruel. Many of them were free from any criminal taint and were, moreover, gentlemen, by birth, education and instinct. But, because they were unfortunate enough to come to New South Wales as exiles, a large section of the settlers wished to make them feel that they were pariahs. Happily, the line of demarcation between the free and the bond has disappeared long since and we are now one people with a common destiny.

James Bowman Succeeds D'Arcy Wentworth.

On May 5, 1818, D'Arcy Wentworth, the principal colonial surgeon, resigned his position. He had done the work since February 24, 1809. At first he had acted as *locum tenens* for Thomas Jamison, who had been ordered to England as a witness in the Bligh-Johnston affair; later, he became his successor. Jamison did not return to New South Wales; he died in England in the year 1810. After D'Arcy Wentworth's resignation, Redfern hoped for but did not receive promotion. Much to his surprise and chagrin, James Bowman, an outsider, received the appointment. It is passing strange how at times the results of a reform act adversely on the reformer. The medical profession is working at high pressure to eliminate disease and push back death. If these things could be accomplished, the occupation of its members would be gone. A fate of this kind overtook Redfern. He had made some excellent suggestions to the Transport Board through the Governor that resulted in a better medical service on the transports, less discomfort in travelling, an improvement in the general health of the passengers and the saving of many lives that would have been lost through preventible diseases. Then, the first surgeon to come to Australia as medical superintendent of one of these transports was James Bowman, the man destined to supplant him.[1]

Redfern's Disappointment at Non-Succession.

Naturally Redfern was annoyed and dissatisfied at the appointment of James Bowman as principal colonial surgeon. He had every reason to suppose that his own promotion had been assured.

Redfern had had a fine record of many years' good service in the colony. He was capable, popular with the patients and had much clinical and administrative experience. Macquarie, who knew his capacity better than any one else, was particularly anxious to secure Redfern's advancement. The Governor's recommendation, a good example of an intercessory prayer, is here quoted:

In succession to Mr. Wentworth as principal surgeon to the medical establishment of this territory, I beg most respectfully to recommend Mr. Assistant Surgeon William Redfern to be appointed Principal Surgeon, as in every respect perfectly competent and well qualified for executing the duties of that important office, being a man of very eminent talents and an excellent scholar and possessing universal knowledge. Mr. Redfern is at present only second assistant on the medical establishment, Mr. James Mileham being the first senior assistant. But this gentleman, though a very worthy good man is very defective in medical knowledge; he is very old and very much affected in his eyesight which render him incompetent for the active and important duties of principal surgeon. These are my sole motives for passing over Mr. Mileham and recommending Mr. Redfern the next officer in succession to him, and these reasons, I trust, will have their due weight with your Lordship. I have, &c., L. MACQUARIE.[11]

In addition to his official position on the colonial medical establishment, Redfern had been medical attendant on the families of Governor Bligh and Governor Macquarie, two of the King's representatives in Australia. He had also successfully treated members of many of the best colonial families. John Macarthur, out of the fullness of his heart for good services rendered, bore excellent testimony to Redfern's worth. Writing to his wife from Bath, England, on May 3, 1810, he says among other things:[1]

Judge then what must have been and what are still my feelings at reading the almost unhoped for news of the favourable change which has taken place in the health of my beloved girl. The day I received your letters, Mr. Redfern's nephew came over from Trowbridge, kindly sent by his father with a letter from Mr. Redfern to me, in which your account of the darling girl's progressive recovery is most fully and pleasingly confirmed. I think I need not tell you, that if I had as much power as I have inclination, Mr. Redfern's reward for the service he has rendered Elizabeth should be as great as the skill he has manifested in discovering and applying an efficacious remedy to her extraordinary disease. I hope he will be informed that no pains were spared on my part to ascertain how far it might be practicable to obtain confirmation of his appointment, and I beg to assure him that whenever Mr. Bligh's affair is settled, whatever little interest I may have shall be exerted in his favour.

Again, in a letter dated London, July 20, 1810, Macarthur mentions his appreciation of Redfern's skill.

Tell him I saw his brother and nephew at Trowbridge and that I shall feel the greatest pleasure if it should be in my power to aid their exertions to serve him.

A private testimonial of this kind, the honest opinion of a soldier, is of much more value as a record of a man's worth than the most flattering epistle written for public use. There was another reason why Redfern expected promotion. The Right Honourable Henry Dundas, later Lord Melville, the Principal Secretary of State for the Home Department, had laid it down as a principle in a dispatch dated November 15, 1793,[12] "that the right of succession to the office of principal surgeon should belong to the assistant surgeon in order of seniority of their commissions." This practice had been observed without exception till the resignation of D'Arcy Wentworth. Nor was this all. Redfern had a definite promise from Earl Bathurst himself

[1] James Bowman arrived in Sydney on January 19, 1816, as surgeon superintendent on the transport *Mary Anne*. He had been trained as a Naval surgeon. On February 29, 1816, he applied for a position on the colonial medical service, but, being disappointed in not getting just what he desired, returned to England. He came back to Australia in 1818 and succeeded D'Arcy Wentworth as principal colonial surgeon. James Bowman married Mary, daughter of John Macarthur, of Camden, New South Wales.

[1] "Some Early Records of the Macarthurs of Camden," pages 192 and 198. John Macarthur's daughter was threatened with permanent invalidism.

that he should succeed D'Arcy Wentworth. The evasion of this promise is difficult to explain. Possibly, the influence of the anti-emancipationist party was sufficiently strong at headquarters to prevent an ex-convict getting his dues. Be that as it may, the promise was broken. In spite of his high qualifications for the position to which he considered he was entitled, in spite of testimonials of which he had many and in spite of his previous long and honourable record of service well done, Redfern failed to succeed D'Arcy Wentworth as principal colonial surgeon. In a section of a dispatch from Earl Bathurst to Governor Macquarie, dated Downing Street, April 14, 1819, the appointment of James Bowman was announced. "I am further to acquaint you," the paragraph ran, "that the Prince Regent has been pleased to confer on Mr. James Bowman the appointment of Principal Surgeon of the Colony." As soon as James Bowman succeeded to the office, William Redfern resigned his commission in the colonial medical service. His letter containing the resignation is as follows:

Sydney, 18th October, 1819.

Sir,—His Royal Highness the Prince Regent having been pleased to appoint Mr. James Bowman to be Principal Surgeon in His Majesty's Territory in New South Wales in room of D'Arcy Wentworth, Esq., resigned, and as I had reasonable expectations from the strong recommendation of your Excellency in my favour, from a long, laborious and useful service of eighteen years, and from the promise of Earl Bathurst to Viscount Castlereagh and from his Lordship to my brother that I should succeed to the vacancy occasioned by Mr. Wentworth's resignation, I cannot but feel that those reasonable expectations have thus terminated in severe mortifying disappointment—that my most sanguine hopes and best prospects in life are thus utterly blasted, I have, therefore, the honour of thus tendering my resignation—soliciting your Excellency to have the goodness to forward the same for the gracious acceptance by His Royal Highness the Prince Regent and at the same time beg leave most respectfully to entreat that your Excellency will be pleased to permit me, in the meantime, to retire from the duties of my situation as Assistant Surgeon till the will and pleasure of His Royal Highness on the subject shall be made known. I have the honour to be, sir, with the greatest respect, Your Excellency's most obedient servant, W. Redfern, Assistant Surgeon to His Majesty's Settlement in New South Wales.

In addition to his letter of resignation addressed to the Governor, Redfern sent Earl Bathurst a communication reminding his Lordship of the promise he had made and mentioning his own great disappointment at being superseded by Mr. James Bowman.[13] He also petitioned for a half pay pension on account of services rendered. This letter was accompanied by two testimonials, one from Colonel Foveaux and one from Mr. D'Arcy Wentworth. Redfern ceased duty as assistant surgeon on October 14, 1819.

Redfern as Magistrate.

Redfern's career as a magistrate was brief. His appointment to the bench was the result of his failure to become principal colonial surgeon. Macquarie was almost as disappointed as Redfern himself at the turn of events and sought to succour his wounded friend. He was willing to give the doctor anything he had in his power to bestow in the way of compensation. Redfern expressed a desire to be made a justice of the peace for the district of Airds, where his property was. Macquarie did this and more; he made his *protégé* a magistrate of the whole territory of New South Wales. This was a bold, perhaps an unwise thing to do; it gave Redfern precedence over many older and more experienced officers. But in the matter of making an emancipist a magistrate, the Governor's authortiy was not to go unchallenged. Mr. J. T. Bigge, the Commissioner, who was in New South Wales at that time, strongly objected to Macquarie's action. He said in effect: "The policy of the Governor in fraternizing at all with reformed convicts is bad enough and to be condemned by every gentleman; but when he attempts to raise one of the most notorious of them to the magistracy of the whole colony, a vigorous protest must be made. I shall not allow him to do it." But Macquarie was not so pliant as Bigge had hoped. The rugged Scottish soldier whose character reflected his country's motto: "Hands off, wha dares meddle wi me!" was determined to accomplish his purpose. The correspondence that passed between the Governor and the Commissioner was characterized by much plain speaking not to say acrimony. Macquarie admitted that in a matter of school learning Bigge might be his superior; but in a knowledge of men and things he would yield to no man, not even to a Commissioner. Macquarie closed the correspondence by telling Mr. Bigge that he intended to make the appointment and there the matter was to end as far as he was concerned. But, "the best laid schemes o' mice and men gang aft agley" as Macquarie found out later. The notice of Redfern's appointment to the magistracy appeared in the *Sydney Gazette* for Saturday, November 13, 1819.[1] Commissioner Bigge, however, did not let the matter end there; he communicated with the Secretary of State for the Colonies. His story and his arguments found favour in the eyes of the English authorities and at last Macquarie had to accept and acknowledge defeat. He was compelled to cancel Redfern's commission. It was an unhappy Governor that addressed the following dispatch to the Right Honourable Earl Bathurst, K.G., His Majesty's Principal Secretary of State for the Colonies:[14]

My Lord, I have the honour to acknowledge the receipt of your Lordship's letter, No. 9, dated the 10th of July, 1820, relative to the King's disapproval of my appointing Mr. William Redfern, late assistant surgeon in the medical staff of this colony, a magistrate, and directing him to be removed from that office. I have now to report to your Lordship that the King's commands have been carried into effect in respect to the removal of that gentleman from the office of magistrate. I have, &c., L. MACQUARIE.

One short year saw the rise and fall of Redfern as a magistrate.

Redfern and "John Bull."

Mr. J. T. Bigge's attitude towards the emancipists was one of active hostility; he saw no good in any

[1] Government and General Orders, Civil Department, Government House, Sydney, Friday, 12th November, 1819. His Excellency the Governor has been pleased to nominate and appoint William Redfern Esquire to be a Justice of the Peace and Magistrate in the District of Airds and throughout the territory of New South Wales; and he is to be respected and obeyed accordingly. By His Excellency's command, J. T. Campbell, Secretary.—*Sydney Gazette*, Saturday, November 13, 1819.

of them. Redfern particularly he delighted in humiliating. In part he was responsible for Redfern's resignation from the colonial medical service; the doctor's dismissal from the bench of magistrates was wholly due to the Commissioner's influence with the Colonial Office. But Redfern had graduated from the "University of Hard Knocks" and refused to be crushed by Bigge's blows. These attacks were as undeserved as they were unjust. Redfern knew this and, as he possessed neither the inclination nor a sufficiency of the Christian grace of meekness to endure them without protest, he counter attacked. His intention was to write a book in which he would tell the world what manner of man Bigge was. He collected data to be printed later, as an adequate and sufficient reply to all the Commissioner's aspersions and sought a publisher. As an earnest of the coming harvest, Redfern sent a letter, evidently a *précis* of the larger work to *John Bull* for publication. But the editor, possibly he was a Scotsman, was too canny to publish it. *John Bull,* circumspect and fearful of the consequences if "freedom of the press" became too free, printed, not Redfern's letter, but its own comments on what had been written. Redfern's communication was a plain statement of facts as he saw them. It was personal, unrestrained in language and unequivocal. It may be of interest to reproduce *John Bull's* comments. They are to be found in the issue of that journal for August 25, 1822.

> We must decline inserting Mr. Redfern's letter, as being a personal attack upon a gentleman known only to us in his public character. We can feel Mr. Redfern and can easily make allowance for the expression of his sentiments upon the subject of Mr. Bigge's report; but we cannot suffer this paper to be made a vehicle of an attack upon a public officer, who has had a very arduous and unpleasant duty to perform, and has, for all we know, performed it well. Mr. Redfern appears to have mistaken us; we are anxious to disclaim any connexion or communication with any of the parties; we take subjects up upon public grounds without fear, favour or affection and when Mr. Redfern's book appears we will read it and, as it seems an object to him to have himself spoken of by us, we will deal fairly by him, observing always that the task assigned to Mr. Bigge by the Government was one which could not from its nature fail of making enemies of that class of the Colonial population to which Mr. Redfern unfortunately belongs.

It is impossible to say if Redfern succeeded in obtaining the services of a publisher for his book; there are no copies of it available now. It is a pity we do not possess the portrait of Mr. Bigge from the pen of Dr. Redfern; it was drawn faithfully even though some of the features were exaggerated. As it is, Bigge's picture of Redfern hangs alone and is lop-sided; it requires the other to act as a counterpoise.

Redfern as a Medical Practitioner.

Redfern held the position of assistant colonial surgeon during the greater part of his professional life in New South Wales. At first he was stationed at Norfolk Island; later, his headquarters were at Sydney. The salary he received from this appointment was £136 17s. 6d. *per annum.* In addition to this he was supplied with rations, fuel, light and quarters. The doctor lived in the north wing of the Macquarie Street hospital, the building now occupied by the Legislative Council of New South Wales. The surgeon's work at the hospital consisted chiefly in the treatment of sick and injured convicts; but free people, seamen and assigned servants, were also received under certain conditions. An indigent free person could have treatment at the hospital on the recommendation of the medical officer after his financial history had been investigated. The fees charged for the medical treatment of sick sailors, the payment of which came from the employers' pockets, were the perquisites of the surgeons, who shared and shared alike. The master of an assigned servant had to pay for the patient's rations only. But the official work of the colonial medical staff was confined not entirely to attendance on the waifs and strays; the civil officers of the Crown could claim also free medical service.[1] Besides attending the "cot cases" in the hospital building, Redfern attended an out-patient clinic for the "ambulatory cases." The medical team of which we hear so much in these days, consisted in the early years of the nineteenth century of one man and, as there was perfect unanimity in that "team" and no time wasted in useless argument, the work was soon accomplished. Redfern's activities extended beyond the four walls of the hospital; he had unrestricted private practice. He was seldom at the infirmary after midday and then only to attend a patient for an illness of extreme urgency. As a private practitioner Redfern enjoyed a great vogue. His practice was large, probably the largest in New South Wales at that time, and his fees were correspondingly high, so his income was something substantial. His *clientèle* embraced all sections of the community, from the Governor at one extremity to the no-class outcast at the other. On one occasion he attended even royalty.[2]

Redfern's reputation as an obstetrician must have stood high; the fee for his services was frequently twenty guineas. Redfern's opinion and help as a consultant were much in request both in town and country. Redfern would have been successful in any calling. He knew not only his work, but he had also a shrewd knowledge of human nature. He did not possess the soothing voice and gentleness of Dr. Bland, he was even brusque with his patients, but those on whom he was called to attend, felt safe in his hands and had a sure and perfect conviction that a recovery would be effected if it were humanly possible.

[1] The information about the work of the colonial medical staff at the hospital has been taken chiefly from "The History of the Sydney Hospital from 1811 to 1911," by J. Frederick Watson, M.B., Ch.M.

[2] "The King's illness continued to increase rapidly and on 7th December, 1821, Mr. Crook, the missionary, was requested by a messenger to attend immediately as Pomarre had fainted. He accordingly hastened to the royal residence with Mr. Redfern, a surgeon from Port Jackson, and found that the patient's end was fast approaching . . . The British ships in the harbour fired minute guns recognizing the solemnity of the occasion." The foregoing is an extract from *The Missionary,* Volume 2, page 84 (Church Missionary Society, 1838). The extract refers to the last illness and death of the reigning prince of Otaheite. He had been the protector of the English missionaries. This incident occurred evidently while Redfern was on his way to England in 1821.

Vaccination and its Introduction to Australia.

Edward Jenner (1749-1823) vaccinated his first patient, a boy named James Phipps, on May 14, 1796. The lymph was taken from the arm of a milk-maid who had contracted cow pox from an infected beast. One of Jenner's pupils came to Australia in 1803,[1] bringing with him a knowledge of this epoch-making discovery and some lymph.

Vaccination was quickly recognized in New South Wales as a great and valuable addition to the *armamentarium medicum*.

On June 24, 1804, there was a notice in the *Sydney Gazette* inviting the public to attend the hospital for the purpose of submitting to the operation of vaccination. The wording of the notice runs as follows:

> All parents who wish their children to be inoculated with the cow pox, are desired to attend the Principal Surgeon at the General Hospital on Saturday next with their children and after that day they are to attend every Wednesday and Saturday from eight to ten o'clock in the morning, during which hours regular attendance will be given to all descriptions of persons desirous of availing themselves of so great a blessing as that which now offers in the happy introduction of the vaccine virus.

Redfern's Visits to England.

Redfern returned to England three times after his transportation to New South Wales in 1801. The first visit was paid in 1821 when he went to England as a delegate from the emancipists to obtain relief from certain disabilities that had been burdensome and oppressive to that section of the colonists. He went again in 1825. His last journey to the home land was in 1828. On this occasion he was accompanied by his son, William Lachlan Macquarie Redfern, who was going to Scotland to complete his education.

It was undoubtedly on the first voyage that Redfern attended the sick Otaheitean prince. This voyage, too, was notable for the "fact" that Redfern died at sea six days before the *Duchess of York* reached her destination. The news of Redfern's obituary proved, however, happily to be an "exaggeration." The *Sydney Gazette* for November 22, 1822, refuted effectively the persistent rumour of Redfern's demise in the following sentences:

> We shall ever feel peculiar interest in detecting falsehood and proclaiming truth. For the last ten days a report has been industriously circulated in the colony, of letters having arrived from London *vid Liverpool*, in the *Clydesdale*, purporting to come from Mr. Hosking, formerly a much respected inhabitant of New South Wales, but now a merchant of London, to a friend at Parramatta. The information goes to say that the *Duchess of York* had safely arrived, a circumstance which is correct; that Dr. Redfern died six days before her arrival in the port of London and that Mr. Hosking had unfortunately failed in business in consequence of his mercantile connexion here. Lately inattention to truth has been the order of the day in Sydney, and therefore we have been induced to sift many reports to the bottom fearful of giving insertion to misrepresentations and found them invariably a catalogue of base and unnecessary calumniations. We are happy to have it in our power most unequivocably to correct those reports, there not being the most remote foundation to foster such ideas as the distempered imagination of some designing men would have the public mind stored with.

Could any "catalogue of base and unnecessary calumniations" be more completely exploded?

The First Banking Institution and the First Directors.[1]

Before the year 1817 banks as we know them were unknown in New South Wales. In the very early days of Australian settlement there was no need for them; later, however, when the ubiquitous merchant and trader appeared, the need for a financial institution became imperative. In 1816 a number of "magistrates, principal merchants and other gentlemen of Sydney," of whom Redfern was one, met at Mr. Judge Advocate Wylde's chambers to discuss the best means of establishing a bank. The gentlemen attending the meeting agreed that it was essential that a sterling currency should take place in the colony. How this might be accomplished was then debated. After much discussion the united wisdom of the meeting decided to establish a bank, the Bank of New South Wales. The original idea was to have a subscription bank with a nominal capital of £20,000, divided into two hundred shares at £100 each. Later, a modified scheme was proposed dividing the capital into four hundred shares at £50 each. The bank was to be used for loan, discount and deposit. The shares were taken up not as readily as the founders of the bank had anticipated and the sum of £12,600 only was realized. The management of the bank was to be under the control of seven subscribers or directors, of whom one was to be termed president of the bank. The first directors of the Bank of New South Wales were Mr. D'Arcy Wentworth, Mr. John Harris, Mr. Robert Jenkins, Mr. Thomas Wylde, Mr. Alexander Riley, Dr. William Redfern and Mr. John Thomas Campbell. Mr. Campbell was unanimously elected as the first president.

The bank commenced operations on Tuesday, April 8, 1817, a charter to begin business having been obtained previously from the Governor. The bank was housed at first in a building known then as Mr. Reibey's cottage in Macquarie Place.

Mr. Howe, Dr. Redfern and a Horsewhip.

In the days of our grandfathers the three chief instruments for punishment or correction were the strap, the slipper and the horsewhip. The first two were used for administration at home; the horsewhip, a sort of high explosive, was reserved for "work in the field." We of the older generation have most of us a vivid recollection of the chastening effect of the application of the slipper and the strap

[1] Mr. Savage was appointed Assistant Surgeon by Letters Patent on July 1, 1802. He sailed from England in His Majesty's ship *Glatton*, arriving at Sydney, New South Wales, on March 11, 1803, by civil time and March 12, 1803, by the ship's logs, after a passage of one hundred and sixty-eight days. Unfortunately the supply of lymph brought out by Mr. Savage lost its potency during the voyage from England and was useless. The transport *Coromandel* that arrived at Sydney on May 6, 1804, was the first ship to reach New South Wales with a quantity of active vaccine. Two unsuccessful attempts had been made previously to transport the material to Australia; one by the *Glatton* and the other by the *Calcutta*. On May 19, 1804, Governor King was able to report to Lord Hobart that "vaccination had succeeded in one instance," *vide* "Historical Records of New South Wales," Volume IV, page 805, and Volume V, pages 207, 406 and 429.

[1] The story of the genesis of the Bank of New South Wales is well told in Volumes IV and VI of the *Journal and Proceedings of the Royal Australian Historical Society*. Information also may be obtained from the *Historical Records of Australia*, Series I, Volume IX, on page 219 and elsewhere.

in days of our childhood; but fortunately we are quite ignorant of the charm and magic of the horsewhip. In an admirable paper, under the caption "The Howes and Their Press," read at a monthly meeting and shortly to be published in the *Journal and Proceedings of the Royal Australian Historical Society*, Mr. J. A. Ferguson, B.A., LL.B., mentions the fact that Mr. Howe, the editor and printer of the *Sydney Gazette* was horsewhipped by Dr. Redfern. He, however, gave no account of the cause of the assault or of its sequel, both of which will be here detailed.

On Wednesday, November 23, 1827, there appeared in the columns of Mr. Robert Howe's paper, the *Sydney Gazette*, a paragraph considered by Dr. Redfern to be outrageously scurrilous and personal. With the smart of the wound still acute he purchased a horsewhip and set out on a retributive expedition. As a matter of fact the offensive article was just the last of a series of aspersions that had quite exhausted Redfern's patience. Mr. Wentworth, who defended Redfern in the subsequent court case, told the judge the whole story: "Week after week, day after day," said his advocate, "there was another and another dish of scandal on which the defendant was made to figure." Some ill-timed remarks on the asthenic condition of the Bank of New South Wales was the exciting cause of the assault. The institution that had begun operations in 1817 under such favourable auspices had practically finished its career within the short space of ten years. Dissolution seemed imminent. Doubtless Mr. Howe thought the occasion was opportune for criticizing the conduct of the management. Unfortunately for this purpose he invoked the aid of that most dangerous of vehicles, sarcasm. He fired his charge, the shot struck home, but the wound inflicted was only skin deep, rousing the victim to a condition of uncontrollable fury. Redfern sought Howe's gore. Here is the offending passage:

> Mr. Thomas Raine, J.P., though pressed by the majority of the proprietors to stand for the vacancy in the direction of the Bank of New South Wales, has declined. For this we are sorry in as much as now Scott of the "Australian" company has also determined upon not presenting himself as a candidate, we know not to what quarter the Board will turn for the purpose of completing its number, unless Mr. J. T. Campbell should take compassion upon his brethren and allow himself to be prevailed upon to come in again; but we rather presume that Mr. Campbell even will not consent to the call of his numerous friends, since it is next to certain that the bank will only live to the 31st of December next. Many of the old proprietors contemplate the winding up of the bank for the purpose of transferring their capital to a new bank, unless those who have rendered themselves unpopular are either willing to resign or else be dismissed. There are only a few of the next year's directors adapted for such an office, wherein confidence, honour, capacity and impartiality should be considered preeminently requisite. However, the determination on the part of Messrs. Raine and Scott, all circumstances considered, do them credit. Some of the proprietors inform us that they will insist upon Mr. Terry taking a seat in the direction with his friend Dr. Redfern. This would be something like a balance in trade.

A few hours after the publication of the *Sydney Gazette* on that fateful day Mr. Howe was riding along George Street on his way from the General Post Office to his home in Charlotte Place. On looking round he saw behind him in the far distance an object, as it were a cloud no bigger than a man's hand, pursuing and overtaking him.

> At first it seemed a little speck,
> And then it seemed a mist;
> It moved and moved and took at last
> A certain shape . . .

It was unmistakable; it was alarming; it was a gig carrying a very irate Doctor Redfern armed with a heavy, brand new horsewhip. Mr. Howe possessed the psychology necessary "to suspect that the doctor was not amicably bent." Redfern allowed Howe to reach his home before coming into action. This was a strategetical error. When Charlotte Place had been reached the doctor demanded the explanation of certain statements appearing in the news sheet, half hoping for an apology; but the printer rather gloried in his vituperation. The gauntlet was flung down! Redfern lost no time in getting to work with the whip, which he used deftly and to some purpose. Half flayed, the aching Howe ran at top speed to the refuge of the kitchen calling for help. Reinforcements soon arrived and in the unequal contest that followed, Redfern was deprived quickly of his weapon. Undaunted he still fought with his fists. Ultimately he was forced to retire into the street, bruised, battered, bleeding and discomfited. When Howe had recovered his breath sufficiently, he hurried to the police station to lay an information against his assailant. Redfern was bound over in the sum of £100 and a surety for a similar amount to come up for trial when called upon. The case was mooted before the Court of Quarter Sessions on Monday, January 21, 1828. The defence was a plea of justification. The assault was clearly a case of retribution for a number of aspersions published from time to time in plaintiff's newspaper. Redfern was so ably defended by Mr. W. C. Wentworth that he secured practically a non-suit. The verdict of the jury was "guilty," but they recommended the case to the favourable consideration of the bench. "On what grounds," asked the chairman. The jury then explained that it was from an impression that the defendant had been aggravated by the prosecutor to commit the assault. The chairman then pronounced the verdict: "The court, taking into considerating the recommendation of the jury finds the defendant in the penalty of thirty shillings to the King." Redforn wrote out the cheque and went on his way rejoicing.[1] But the incident had a sequel. The doctor met Mrs. Howe in George Street some days later and expressed his sorrow for what had happened. "Mrs. Howe being a commanding woman, broke her umbrella in pieces over the head and shoulders of the doctor, who made a hasty retreat. It was a case of Greek meeting Greek, but the doctor got the worst of it that time."(15)

Redfern: Landowner, Grazier, Vigneron and Agriculturist.

There is a suburb of Sydney and a railway station called Redfern. The original estate from which the suburb derived its name consisted of two properties

[1] *The Australian* for Wednesday, January 23, 1828, contains the details of the trial.

FIGURE V.
Redfern's House at Campbell Fields.

of seventy and thirty acres respectively. The larger area was a grant from Governor Macquarie; the smaller a portion of the marriage *dot* of Miss Sarah Wills when she became the wife of the doctor. The position of the estate is clearly shown on the excellent plan, drawn for me by Mr. J. F. Campbell, L.S., a Fellow of the Royal Australian Historical Society, that accompanies this paper. In addition to this holding, Redfern owned thousands of broad acres at Bathurst, Cowra, the Port Phillip district and at Airds. His estate in the last named district alone, called Campbell Fields in honour of the Governor's lady, contained at least 2,620 acres. This was his favourite possession. He was introduced to the fair land of Airds on Tuesday, November 6, 1810, when he accompanied Macquarie to Minto on the Governor's first official visit to the "interior of the colony." Doubtless what he saw and experienced on that occasion, the balmy air of late spring, the green of the cultivated fields, the healthy appetite born of exercise in the pure country air and the picnicky feeling generally, created in him a desire to possess a farm of his own in this district. Redfern's scientific knowledge of agriculture and his practical application of it made his farm one of the best in the district. To receive from Commissioner Bigge a very flattering testimonial on the condition of his land, Redfern must have spent a great deal of time, thought, labour and money on the cultivation of Campbell Fields.[1] Redfern did not originate the great wool industry of Australia, but he played no inconspicuous part in its development. In 1824, while he was recruiting his health in one of the Atlantic islands, his wife wrote to Earl Bathurst petitioning for certain concessions. The letter tells us much of Redfern's activities and is to be found in the "Historical Records of Australia," Series I, Volume XI, at page 203. It is dated, 33, Rockingham Row, Kent Road, London, January 13, 1824, and runs:

> Sheweth that your memorialist's husband, Mr. William Redfern, late of New South Wales, and now temporarily residing at the Island of Maderia for the benefit of his health, is about to return to the colony per ship *Alfred* now under immediate dispatch, there permanently to reside. That Mr. Redfern possesses in New South Wales upwards of fourteen hundred (1,400) head of horned cattle, four thousand (4,000) sheep and several horses. But the quantity of land he possesses (the greater part obtained by purchase) is not nearly sufficient to subsist his herds and flocks. That Mr. Redfern has gone to very considerable expense in the purchase of Merino sheep which he is about to convey to New South Wales for the purpose of improving and increasing the production of fine wool in that colony. And he has also engaged vine dressers and procured vines at the island of Maderia at considerable expense to proceed to New South Wales for the purpose of cultivating the vine there. That it is now impossible to procure land by purchase in New South Wales; and as the quantity Mr. Redfern holds is entirely insufficient for the subsistence of his stock of horned cattle and sheep and in consideration of the expense Mr. Redfern has gone to in procuring and conveying vine dressers, vines and Merino sheep to that colony, your memorialist most respectfully solicits your Lordship to direct that a grant of land may be made to Mr. Redfern in New South Wales. As your memorialist, Mr. Redfern, &c., are to proceed in the ship *Alfred*, to sail in a few days for New South Wales, the favour of an early communication of your Lordship's pleasure is respectfully requested.—S. Redfern."

The Redferns had as shipmates on the *Alfred* on their return journey to New South Wales, Mr. W. C. Wentworth and Dr. Wardell, two young lawyers destined later to take a conspicuous place in the making of Australian history. It is curious how great issues hang on mere details. The fate of Australia and especially of New South Wales depended in a large measure upon the safe arrival of the ship *Alfred* at Sydney in September of 1824.

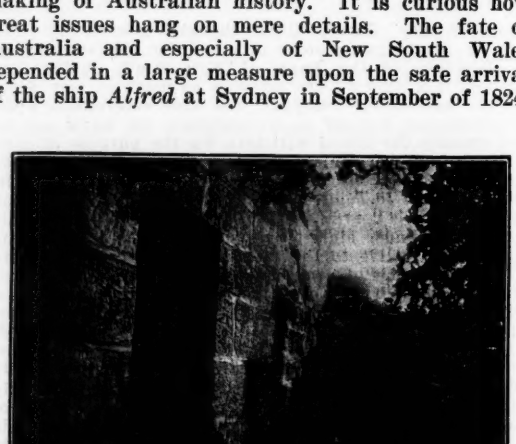

FIGURE VI.
The Wine Cellar at Campbell Fields.

[1] In the "Report of the Commissioner of Inquiry into the State of the Colony of New South Wales by John Thomas Bigge, ordered by the House of Commons to be printed 19 June, 1822," we read on pages 140, 141: "Another fertile district that of Airds has been occupied, principally by small settlers of the class of emancipated convicts who are proceeding in the same cause of rapid exhaustion of their lands, without regard to their future means of support . . . . This farm (Redfern's) and two others in the same district belonging to remitted convicts form exceptions to the general observations that have been made respecting their system of cultivation. The farm of Mr. Redfern, though not consisting of good land, has begun to exhibit the improved system of English husbandry and reflects credit upon the intelligence and spirit with which the expensive operation of clearing the land from trees has been conducted." Again in that part of the report, ordered by the House of Commons to be printed on March 13, 1823, Bigge tells us: "The estates that are in the best state of cultivation and exhibit the greatest improvement, are those of Mr. Oxley, Surveyor General, Mr. Cox, Sir John Jamison, Mr. Hannibal MacArthur, Mr. Redfern, Mr. John Macarthur, Mr. Thoresby and Mr. Howe."

Redfern's Public Services.

Redfern lived and died before the people of Australia had been granted the privilege of self government, so had no opportunity of serving his country in the Legislative Council. Nevertheless, his contributions to the advancement of the colony and to the welfare of the people were considerable. His services were as great as they were varied. He was interested in the work of the Benevolent Society from its inception on May 8, 1813, till he retired from practice many years later. It is of interest to note that that society was the first of its kind in Australia. It was originally known as "The Society for Promoting Christian Knowledge and Benevolence," being created "because, notwithstanding the humanity of the government in providing hospitals, &c., still the numerous instances of distress out of reach of this provision continually occur which it becomes the benevolent to mitigate."[16] The society in its original form and name continued the good work of alms-giving till May 6, 1818, when its title was altered. The institution has been known ever since as the "Benevolent Society of New South Wales." Redfern was appointed to the committee in 1814. For many years he gave honorary medical service to all the sick and afflicted that came within the scope of the society's influence. He also contributed liberally to the funds of the institution. In 1818, when this philanthropic society was reconstituted Redfern's advice and assistance were greatly appreciated. He was a member of the committee convened in January, 1812, to frame an address to Governor Macquarie.

As an energetic member of the Aborigines' School Committee he did much to mitigate the sufferings of the natives and create in them a desire for the decencies of life. In the "'teens" of last century as in the "'teens" of this, the world was sick and war weary. Disease and destitution were rampant and very few English homes were free from the blight of battle. Australia desired to offer practical sympathy to those who had been hard hit. A committee, of which Redfern was one, was formed to carry out the work. The appeal was heartily responded to and a large sum of money was transferred to England. It is interesting to make a search of the files of the *Sydney Gazette* of that period. Much that we are apt to think is quite modern appears in the newspapers of one hundred years ago. During the late war the daily papers were flooded with anagrams, prophecies, jugglings with words and figures, puzzles, the solutions of which, unless given, were like the ways of Providence, past finding out. In the issue of the *Sydney Gazette* for January 27, 1816, there appears a curious and ingenious anagram on the words "Napoleon Bonoparte." Here it is: *"Bona Rapta Pone Leno."* The translation of this is: "Plunderer lay down your spoil." There is nothing new under the sun; sorcery, magic, divination and witchcraft come from a dim and distant past. The columns of the same newspaper for February 3, 1816, contains "the names of persons in New South Wales who have subscribed to the relief of sufferers at the Memorial and Glorious Battle of Waterloo." In this list, amongst the names of those who had given with a free hand appears that of William Redfern. with the other landowners Redfern attended a public meeting on January 23, 1819, to consider the question of sending a petition to His Majesty's Government on matters concerning the colony.

On more than one occasion he was president of the anniversary dinner. Redfern devoted much time and labour to have removed the disabilities the emancipists had to endure. In the year 1817 the King's Bench gave a ruling that a Governor's pardon had the force of a pardon issued under the sign manual only, leaving the emancipist in the eyes of the law a "convict attainted" still "without power to maintain personal actions or acquire, retain or transmit property." Until this decision had become effective, it had been understood that the Governor's pardon had had the same force as a pardon issued under the great seal of England that made the individual free indeed with all the privileges of which he had been deprived as a convict, restored. This decision came into force in New South Wales in April, 1820, causing a considerable amount of apprehension amongst those to whom it referred. A meeting of emancipated colonists was convened for January 27, 1821, to discuss the best means of dealing with the dramatic situation that had arisen. At this meeting William Redfern was chosen chairman. After much discussion those present decided to send the chairman and secretary, Mr. Edward Eagar, to England[1] as representatives of the victimized section of the community, with a petition to be presented to the proper authorities. The advocacy of the delegates, supported as it was by recommendation from Commissioner Bigge, was entirely satisfactory. The *New South Wales Act* of 1823 was passed. That Act included a provision declaring all pardons already granted to have the force of pardons issued under the great seal; but prospective pardons to be operative within the colony only.

Redfern had been absent from England for twenty years when he returned to it as an emancipist delegate. From that time on his residence in New South Wales was intermittent.

Redfern Retires from Practice.

After his return to New South Wales in 1824 Redfern did not practise medicine seriously. He was in his forties, had amassed a competence and had other interests. His vines, vine dressers, his Merino sheep and horned cattle all required supervision. He found he could not attend properly to an exacting medical practice and at the same time engage in scientific farming. One or the other had to be discarded. Medicine was relinquished. He shut his office door finally at the end of August, 1826. The *Sydney Gazette* for September 6, 1826, has quite lot to say about this crisis. It tells us:

> Dr. Redfern we understand intends returning to his estate at Campbell Field in the course of a few days. The doctor has been so long accustomed to a rural life

[1] They sailed for England in the ship *Duchess of York* on October 25, 1821.

and for such a number of years unused to the elaborate practice of his profession that he finds it difficult to renew such busy cares. We are sorry for this resolution of the doctor's inasmuch as the town and neighbourhood of the metropolis have already been powerfully assisted by his attention and many poor patients who have been in the habit of visiting Macquarie Place daily since his residence in town will sensibly feel the abrupt contemplated departure which we should like to see abandoned. Of Dr. Redfern's skill there can be but one opinion since his most inveterate enemies are reluctantly obliged to do him that justice. His methods, or his manner, let it be called by what term our readers please, may not be so winning or seductive as might be wished, but then his experience, his skill and his practice in our judgment make ample amends for any apparent absence of overflowing politeness. We should not have volunteered to offer so much, only we like to render justice to every one that falls in our way; and were we to say less, it is not likely that we should state the truth. Though we join with the tide of public opinion as regards a distinguished candidate for medical fame and ever will continue foremost in awarding our humble tribute of commendation both in public and private life to that universally respected gentleman; nevertheless, we are impelled from motives that can easily be explained, if necessary, thus publicly to give an opinion of Dr. Redfern's professional merits. In public life he might depend, of on nothing more substantial, upon our editorial support were he to continue in practice; and even in retirement he will be one of those who may always calculate on our best wishes. If we were like the doctor, independent of the world, we also should be glad to seek repose from the ceaseless perplexities of public life; though there are men amongst us so attached to public life and enamoured of its charms that they would rather part with the independence they possess and which they might enjoy, than relinquish the drudgery of pre-eminent misery.

Redfern left New South Wales finally two years later.

Redfern's Marriage and Death.

William Redfern married Miss Sara Wills on March 4, 1811. From the little we know of their married life, we have every reason to believe that she was his excellent chum, companion and helpmeet. There were two sons born to them, William Lachlan Macquarie Redfern, whose birthday was July 27, 1819, and Joseph Foveaux Redfern. The second son was born in 1823 and died on April 11, 1830. William survived. He was at school in Edinburgh at the time of his father's death. Later, he married and had several children. Dr. Redfern died at Edinburgh, Scotland, in July, 1833, where he had been living for some years. No details as to the cause of his death are available. Possibly the hardships endured in his youth and early manhood were contributing causes. When his call came he was not an old man—about fifty-five years of age The newspapers of the time made eulogistic references to the doctor's passing. From *The Australian* for December 27, 1833, the following notice is culled:

By *The Brothers*, Captain Towns, the melancholy intelligence has been received of the death of William Redfern, Esq., M.D., which happened at Edinburgh late in July last. Mrs. Redfern, who left this port on the 10th March by the *Norfolk* to join the doctor, unfortunately did not reach London till two days after his interment. We are, however, happy to be able to state that Mrs. Redfern, up to the departure of *The Brothers* enjoyed a good state of health. The long stay of the doctor in Europe was occasioned by a paternal affection for his only child, a son (now in his fifteenth year), whose education he superintended at Edinburgh. As a medical man the abilities of Dr. Redfern were highly respected, and as a private individual those who were connected with him by ties of blood deeply lament a firm, liberal and affectionate friend.

Macquarie and Redfern.

One of the most admirable traits in the character of Macquarie was the staunchness of his friendship to Redfern. He jeopardized even his own chances of preferment in defence of his friend. His advocacy of Redfern's claims to the position of principal colonial surgeon of the colony and the appointment of his *protégé* to the magistracy brought him into serious conflict with Commissioner J. T. Bigge. Of that fight, a fight in which he had to face "fearful odds," Macquarie carried the scars till his dying day. And this affection for the doctor was due not merely to the fact that his friend was an emancipist; Redfern was a man of worth, possessing attributes that attracted people in every station of life. Redfern had been "discovered" by Colonel Foveaux years before Macquarie came to New South Wales. It was the testimonial of the Colonel that began a friendship between the Governor and the assistant colonial surgeon that lasted without interruption till the death of the older man in 1824. Redfern, on his part, was not unmindful of his chief's favours; his loyalty and devotion to duty never failed. In the eyes of the Governor, Redfern was a man of many parts and a man of integrity, a great reputation to be sustained only by hard work and circumspection. During the whole term of Macquarie's administration Redfern was medical adviser to the Government House. He accompanied the Governor on all his official visits to the interior of the colony and elsewhere. In 1815 he crossed the Blue Mountains with Macquarie on the first vice-regal visit to Bathurst. To the members of the Central Northern Medical Association it is of interest to know that Redfern was in this city in 1818 when his chief laid the foundation stone of Macquarie Pier, now known as the breakwater. Both Macquarie and Redfern returned to England in 1821. Possibly they renewed their friendship on the other side of the world, where amidst the seductive delights of rural England or the more rugged beauties of Scotland, they could give and receive hospitality free from the critical eye and gossiping tongue of the military caste of New South Wales.

When the ex-Governor died three years later there can be little doubt that had he been in England at that time, one of the sincerest mourners at the obsequies would have been Redfern.

Conclusion.

Life in New South Wales when Redfern first arrived could not be called, by any manner of means, idyllic. The mother colony was then only thirteen years old and primitive conditions still survived. Nature, "red in tooth and claw," against which the earlier settlers had had to wage a continuous war, was being conquered, but very slowly. The first two Governors, Phillip and Hunter, had returned to England. Phillip had made his administration notable by his enduring courage and amazing gifts of organization. Possibly it was his prophetic vision

that sustained him time and again when the life of the infant colony seemed destined to extinction.

John White, the first principal colonial surgeon, did not share Phillip's optimism. Indeed his outlook was decidedly pessimistic. White's testimonial to New South Wales at that time was: "a country and place so forbidding and so hateful as only to merit execration and curses." He also spoke of "my fate and that of my fellow sufferers" A considerable amount of exploration work had been accomplished during the first decade, but the occupied British possessions in Australia for a number of years consisted of only a small area bounded by Port Stephens on the north, Port Hacking on the south, on the east by the Pacific Ocean and by the impenetrable barrier of the Blue Mountains on the west. Mount Twiss, fifty-four miles from the coast, reached by Dawes on December 14, 1789, was the western limit. The rest of the continent was as dark as the "Egyptian night." In 1813 expansion to the west of the Blue Mountains became possible by the epoch making work of Blaxland, Lawson and Wentworth. Redfern lived during the rule of six governors, beginning with King and ending with Bourke and witnessed the evolution of New South Wales from a mere gaol to a decent, well ordered colony. In 1801 there was no press, free or censored. The first newspaper, the *Sydney Gazette,* made its appearance on March 5, 1803. The first financial institution, the Bank of New South Wales began operations in 1817. The first steamship, the *Sophia Jane,* arrived in Sydney on May 14, 1831. The arrival of this ship caused as much excitement at the time as did the arrival of Sir Ross and Sir Keith Smith by aeroplane nearly one hundred years later. In the twenties of last century education received serious attention. The Sydney Grammar School, of which the career was very chequered till 1854, was founded in 1825. Two King's Schools, one in Paramatta and the other in Sydney, were instituted in 1832. The Sydney University was not founded, however, till some years later. The Botanic Gardens has a very ancient Australian history. One of the first acts of Arthur Phillip was to clear some ground for a farm and garden. The land round the cove immediately east of Sydney Cove, called Farm Cove, was chosen for the purpose. But it was not until June 13, 1816, that the place was formally set apart as the Botanic Gardens. The Wishing Tree, a large Norfolk Island pine known to thousands of visitors to the gardens, was transferred from the garden at Government House to its present location by Governor Macquarie in the same year. No more will be said. To produce an ample, exhaustive and complete catalogue of Australian events during the lifetime of William Redfern is not the intention of this article; sufficient, however, has been said to demonstrate how remarkably and quickly the colony grew, expanded and developed in a few years. Charles Darwin, the father of many modern biological specialties, was astonished at what he saw in Australia when he visited these shores in Her Majesty's ship *Beagle* in 1836.

Character of Redfern.

Redfern was a bluff, hearty British sailor. He was very human and no human is perfect. But if he were not a perfect saint, neither was he a perfect sinner. Virtues he had, probably more than most men, of which one was his intense loyalty. There can be no doubt about his loyalty to the King and constituted authority. During the Bligh rebellion Redfern stood by the Governor. At the time when the insurgents were at the very gates of the Government House he was with the Governor's family on an errand of mercy.[1] It was his loyalty to and sympathy for his unfortunate shipmates that lost him his liberty and nearly cost him his life. Redfern was not one of those of whom Australia has any reason to be ashamed. If fate and fortune were unkind to him in his youth, with the passage of the years they made amends. In this new land an important suburb of Sydney perpetuates his name. By force of character and the buoyant spirit of optimism he successfully came through a fiery furnace that would have shipwrecked the life and scorched the soul of many a man. That he was a skilful and well informed surgeon we have ample proof; even Commissioner Bigge[2] testified to his knowledge and talents. He was given to philanthropy. By personal service and in other ways he was a tower of strength to the Benevolent Society in the tender years of its infancy. Macquarie's estimate of Redfern's character is worth repeating:(17) "There are a few families who have not availed themselves of his services. His duty in the general hospital has been laborious and most certainly fulfilled with a degree of promptitude and attention not to be exceeded. I have heard of many poor persons dismissed from the hospital thank him for their recovery, but have never known a patient to complain of his neglect." Redfern's bedside manner was not perfect; possibly this was due to his early career in the Navy; but he had the skill and that quality of character that carries conviction and inspires confidence, compensations that more than balance honeyed phrases or flattering remarks. Redfern was a good Australian pioneer. With brain and brawn and hard cash he sought the good and glory of his adopted country. Men like the pioneers who fought a hard fight and won through deserve our homage. Redfern is dead, but while he was yet alive those who knew him best were always ready to declare that whatever might be said against the emancipists as a class, one of them at least could "bear without abuse the grand old name of gentleman"—Redfern.

Acknowledgements.

I desire to express my cordial appreciation of the kindness and help of Mr. Hugh Wright, the Mitchell Librarian and his staff; of Mr. J. F. Campbell who devoted much time and trouble in preparing the plan of the original Redfern estate; of Captain

[1] Redfern was attending Mrs. Putland, the Governor's daughter, when the soldiers entered Government House to arrest Bligh.

[2] "Mr. Redfern's skill was acknowledged and that aided by great assiduity and good natural talents he had overcome the want of early study and experience."—Commissioner J. T. Bigge on Dr. Redfern: Bigge's Report.

Watson, President of the Royal Australian Historical Society, for the loan of lantern slides; of Mr. R. H. Antill, of Jarvisfield, Picton, a grand-nephew of Doctor Redfern, for family information; of Mrs. Shaw, a member of the Royal Australian Historical Society, for photographs of Doctor Redfern and his house at Campbell Fields; of the Research Officer at the Public Library and of Mr. H. Selkirk who from time to time gave valuable information that would not have been received otherwise. The "Illustrated Australian Encyclopædia" has been of considerable assistance. The other authorities have been noted in their proper place.

References.

(1) Report of the Commissioner of inquiry into the state of the Colony of New South Wales, by John Thomas Bigge. Ordered by the House of Commons to be printed, June 19, 1822. Page 84.

(2) "Historical Records of Australia," Series I, Volume VI, page 745.

(3) "Historical Records of New South Wales," Volume VI, pages 741 and 757.

(4) "Historical Records of New South Wales," Volume VII, page 306.

(5) "Historical Records of Australia," Volume VI, Series I, note, page 185.

(6) "Government Dispatches," Volume I, Number 3, June 28, 1813, in the Mitchell Library.

(7) "Historical Records of New South Wales," Volume I, Part I, pages 314, 315.

(8) "Historical Records of Australia," Series I, Volume VIII, page 275 *et sequens.*

(9) "Historical Records of Australia," Series I, Volume VIII, page 275 *et sequens.*

(10) "Historical Records of New South Wales," Volume VII, page 357.

(11) "Historical Records of Australia."

(12) "Historical Records of Australia," Series I, Volume I, page 458.

(13) "Historical Records of Australia," Series I, Volume X, page 274.

(14) "Government Dispatches," Volume IV, November 9, March 20, 1821.

(15) "Dr. Redfern," by Grand-niece of Robert Howe. Letter to the *Sydney Morning Herald* for October 16, 1926.

(16) "Votes and Proceedings of the Legislative Assembly During the Second Session of 1898, with the Various Documents Connected Therewith." In three volumes. Volume 3 contains the genesis of the Benevolent Society.

(17) Letter to the Right Honourable Viscount Sidmonth.

Reviews.

DIFFERENTIAL DIAGNOSIS.

Nearly twenty years ago Dr. Cabot introduced himself to the favourable notice of the profession by a large book on differential diagnosis and there now appears the English issue of the ninth American edition of his "Physical Diagnosis."[1]

This book describes morbid physical signs and the means of eliciting them. Dr. Cabot sometimes shows us how to work from signs to the diagnosis of a disease and sometimes follows the easier method of assuming the disease and describing the signs it exhibits.

He draws freely on his personal experience and the value of the book is enhanced by his delightful candour when he differs from accepted authority. Thus he says: "I can recognize no tricuspid murmurs." "Epigastric pulsation gives us no evidence of the existence of hypertrophy of the right ventricle, despite contrary statements in many textbooks." "I know today nothing about the physical signs of emphysema." In the following he goes perhaps too far: "In *incipient* tuberculosis" of the lungs "the X ray as often leads us wrong as right."

In the main, however, as the following quotations illustrate, his views are eminently sound. "I have never seen 'athlete's heart' in the sense of chronic hypertrophy, or of acute dilatation, produced in the *previously sound heart* by violent exertion." "In the early stages of tuberculosis of the lungs . . . the diagnosis may be established only by the positive result of a *tuberculin* injection." "A positive" Wassermann "reaction reliably done is important but not conclusive evidence of syphilis. Negative reactions do not exclude syphilis."

We must beg leave to doubt his statement that anterior poliomyelitis comes on wholly without sensory symptoms; in Australia very severe pain is usual.

Dr. Cabot abstains from describing laboratory tests which he does not do himself; we therefore find very little about radiography and bacteriology, but are surprised at his omission to describe the use of the laryngoscope and of the ophthalmoscope. His treatment, too, of the nervous system is very slight and indeed degenerates in its latter part into scrappy notes.

The book is well bound and printed in clear type on good paper, but unhappily it is marred by many misprints, especially unfortunate in the case of numbers. The illustrations are excellently produced, but very scantily described.

This book will be welcomed by those who prefer a good, expensive, foreign work to a better, less expensive, English one.

[1] "Physical Diagnosis," by Richard C. Cabot, M.D.; Ninth Edition; 1927. London: Baillière, Tindall and Cox. Royal 8vo., pp. 558, with illustrations. Price: 25s. net.

A RÉSUMÉ OF DISEASES OF THE HEART.

"The Heart and its Diseases" by Charles W. Chapman claims to be only a summary of well-established facts and recognized theories.[1] It is certainly nothing more.

The contents cover approximately two hundred pages and include a number of illustrations. In this small space the author has of necessity dealt with his subject in a very sketchy manner, touching very lightly and rather ineffectively on many aspects.

There are several statements which do not seem to be in accordance with well-established facts. For example: "A slowing of the pulse is seen in tuberculosis and in other toxæmic conditions. The same condition is brought about by fear, anxiety, worry and pain; also by many of the internal secretions, such as adrenalin, by increased metabolic activity caused by the secretion of the thyroid and the secretion from the ovary and testicle."

The author's method of arranging his subject is somewhat unique and open to criticism. He includes the differential diagnosis and treatment of dyspnœa and cardiac pain in his chapter on "Physical Examination" and the ætiology, symptoms and treatment of hyper- and hypotension in his chapter on "Instrumental Aids in Diagnosis."

However, this little book is easily and quickly read and may prove of some use to the student as a reminder of the main facts on the day of his examination.

[1] "The Heart and its Diseases: A Handbook for Students and Practitioners," by Charles W. Chapman, M.D. (Durham), M.R.C.P. (London); 1927. Edinburgh: E. and S. Livingstone. Crown 8vo., pp. 216, with illustrations. Price: 8s. 6d. net.

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Press Notices.

A few weeks ago a correspondent called attention in very general terms and in a most measured manner to the practice that has become common of the publication in lay newspapers of personal notices concerning medical practitioners. He referred specifically to the accounts of their doings, their social successes and their academic flights and mentioned that these notices are frequently embellished with portraits of the individuals concerned. He expressed the opinion that the publication of these notices is not ascribable to any ulterior motives on the part of the practitioners. There can be no denying the fact that the notices appearing in the daily press of real or imaginary news of medical practitioners are becoming more and more frequent. There can further be no doubt concerning the nature of these notices. They come within the definition of the General Medical Council of "notices commending or directing attention to the practitioner's professional skill, knowledge, services or qualifications." Their publication is contrary to the public interest and discreditable to the profession of medicine. In Great Britain the practitioner concerned who resorts to these practices, renders himself liable on proof of the facts to have his name erased from the Medical Register. The General Medical Council holds the practitioner responsible for the publication if he procures it or sanctions it or acquiesces in it. The question of motive is obviously of secondary importance, since it is usually difficult if not impossible to prove the objective of an indirect act. On the other hand it is significant that the spread of indirect advertising and of indirect canvassing for patients is of relatively recent date and it was this disturbing fact that induced the General Medical Council to amend the Warning Notice to prevent medical practitioners having recourse to tricks. In the "Handbook for Recently Qualified Medical Practitioners" issued by the British Medical Association, it is pointed out that practitioners should take care that others do not advertise on their behalf.

Our correspondent, who signs himself *"Sidere Mens Eadem Mutato,"* rightly looks upon the practice as a sign of the times. This is an age of advertising and the commercially minded medical practitioner finds it difficult and inconvenient to resist the impulse of general custom. He closes his ears to the force of argument that impelled the medical profession to proscribe advertising in all its forms. There is a tendency to scoff at the dignity of the medical profession and at its idealism. If medical practice is a career, a means of earning a good living, those who adopt it, have to employ modern methods of encountering competition. Ethical codes are acceptable only if they do not interfere with the earning power of the individual practitioner. This attitude may be openly avowed by but few; but if it exists, it threatens the very foundations of the medical profession. The great majority still subscribes to the tenets of the medical profession. The relations of a doctor and his patient are of so intimate, so sacred a nature, the trust imposed on the former by the latter is so unbounded and the service of the doctor is so urgent and vital that medical practice must be based on the highest ethical ideals. The medical practitioner is not allowed to advertise because he is privileged to practise as a registered practitioner under well defined conditions. He is required by the law to possess sufficient knowledge, to exercise reasonable care and to exhibit skill. He is dealing with human lives and for the honour of his profession he is bound to place the safety of his patients before all other considerations. If he has exceptional ability, his reputation will soon become established and patients will seek his services. The charlatan brags about his competency and boasts of his ability to cure disease. To protect the public against these loud mouthed pretenders, the medical profession demands that no member may make claim to special knowledge or ability nor permit others to do so for him. The ethical rule cannot be too strict and its application cannot be too severe. It is better to sacrifice one or two dupes than to

permit the public to suffer by the relaxation of a regulation devised to save it from danger.

The Medical Boards in Australia are governed by six legislative measures which differ from one another. The powers possessed by the General Medical Council of erasing the name of a medical practitioner from the Medical Register for "infamous conduct in a professional respect" are given to the Medical Boards of New South Wales, Queensland and Western Australia, but not to the Medical Boards of Victoria, South Australia or Tasmania. There is at present no machinery in the three first named States whereby a medical practitioner who offends against the rule prohibiting all forms of advertising, will be required to show cause why his name should not be removed from the register. The Branches of the British Medical Association in Australia can require offending practitioners to defend a charge made against them before the Councils or before the special ethical committees. The extreme expedient of expulsion is rarely adopted, although it would seem that the defence of *"Sidere Mens Eadem Mutato"* cannot be upheld in regard to every offender. There is a grave danger that the ethical rule may become meaningless and that the practice may continue to increase, unless the Branches of the British Medical Association in Australia apply the rules with greater strictness and unless the Medical Boards create machinery whereby offenders are brought before them on every occasion.

Current Comment.

"INSULIN" AND CARBOHYDRATE TOLERANCE IN DIABETES.

THE extraordinary power of recovery with which Nature has endowed the human body is widely recognized, in fact the term *vis medicatrix naturæ* is a commonplace in medical journalese. This power is not confined to recovery from traumata and so forth of bacterial or mechanical origin, but is also manifest in replacement of lost tissue by means of compensatory overgrowth. Thus if one kidney is removed, the remaining kidney takes on the function of the lost organ and becomes considerably enlarged. When a muscle is removed or thrown out of action, its adjuvants have to work "overtime" and become hypertrophied. Reference has already been made in these pages to the work of Cameron who found that in the guinea pig excision of part of the pancreas is probably followed by regeneration of acinar and islet tissue and that regeneration is inhibited by giving "Insulin" and pituitrin. What holds true of a healthy guinea pig, however, cannot readily be translated or applied to the pancreas of persons with diabetes. There is danger of false deduction if the normal and morbid are confused. Thus, although the performance of partial pancreatectomy in dogs has undoubtedly yielded much useful information on pancreatic disease, it is quite fallacious to regard the resulting condition of the dog as identical with that found in human *diabetes mellitus*. The question of the regeneration of the cells of the islands of Langerhans or their compensation in the clinical syndrome known as *diabetes mellitus* is a very real one. Since the isolation of the pancreatic hormone by the Toronto workers the lot of the diabetic has been much happier. The application of modern knowledge and the use of "Insulin" have resulted in what may well nigh be described as the elimination of diabetic coma. It has become possible to subject diabetics to life saving surgical operations which in bygone days would invariably have been fatal. Intercurrent disease, however, still takes its toll of these persons, probably owing to the action of the stimulation of the thyreoid-adrenal apparatus postulated by Lawrence and Buckley (see THE MEDICAL JOURNAL OF AUSTRALIA, September 10, 1927). From time to time clinical reports are made which appear at first sight to justify the conclusion that there is an increased tolerance for carbohydrate, that some regeneration has taken place in the pancreas, in other words that "Insulin" and its accompanying dietetic measures have resulted in a partial cure. The question of the possibility of such an occurrence has recently been investigated by I. M. Rabinowitch.[1]

Rabinowitch points out that there are no records available, clinical or experimental, which demonstrate a cure. Harrison made a careful study of five selected patients with observations lasting eleven to eighteen months. He was unable to demonstrate a partial remission. All five patients needed as much or slightly more "Insulin" at the end of the observation period than at the commencement. Such fluctuations in dosage of "Insulin" as occurred, were attributed to difficulties in balancing the dose of "Insulin" accurately against the diet, to variations in the potency of the "Insulin" and to alterations in metabolic activity of the tissues. Rabinowitch holds that the question as to whether "Insulin" can improve tolerance for carbohydrates is just as important as the possibility of obtaining a cure through this agency. The matter is only one of degree. If improvement of carbohydrate tolerance could be definitely demonstrated, it would be justifiable to look for partial or even complete cure with the effluxion of time. His communication deals with an investigation that has been made at the Montreal General Hospital.

[1] *The Quarterly Journal of Medicine*, January, 1928.

It is quite obvious that in the investigation of such a condition as diabetes difficulty in the interpretation of findings will be occasioned by the different types of the disease. Rabinowitch refers to the statement of Rose Bradford that "diabetes is not an entity, but a clinical label attached to a number of different conditions with varied origin, different morbid anatomy and liable to follow different courses." As evidencing the truth of this statement he refers to several types of patient. First of all there is the person with acute diabetes. This type of patient is known to have no glycosuria, but shortly after some illness, possibly of a mild nature, rapidly manifests glycosuria and acidosis and progresses to the stage of coma. Relatively small doses of "Insulin" effect an improvement and the patient soon is able to take a moderate amount of carbohydrate. Observed over a period of two to three years, these persons do not appear to make any downward progress. In the second place there is the person with mild diabetes whose tolerance is suddenly lowered by an infection and who progresses rapidly to the stage of severe acidosis and coma. After recovery from the infection these persons may be able to discontinue the use of "Insulin," to maintain normal weight and to excrete urine free from sugar and to have a normal blood sugar concentration. There is also the "juvenile diabetic" whose illness may run an acute course with severe acidosis and coma. After "Insulin" treatment this type of patient may recover and eventually require little or no "Insulin" while on a moderately liberal diet. Rabinowitch refers to cases illustrating each of these types and accepts Bradford's statement *in toto*. It is interesting to note that the different types may be readily understood if the hypothesis of the thyreoid-adrenal apparatus of Lawrence and Buckley is accepted. Bradford referred to the "different morbid anatomy" of the several types. Variations in the degree of involvement certainly occur, but the underlying change is undoubtedly situated in the island cells of the pancreas. This, however, is not part of the present discussion. Rabinowitch disregarded the more unusual types of diabetes to which reference has been made, and confined his study to the form of the disease which is exemplified in the great majority of patients, namely chronic progressive diabetes. Although this condition runs a moderately slow and steady course and although its metabolism is in a large measure understood, there are many "variables" to be considered. Diabetics with foci of infection and those with a history of gall bladder disease were excluded. The most difficult factor to exclude was the influence of fasting. With an individual not at rest in bed and on a diet of constant composition the degree of fasting will depend on the degree of muscular activity. Patients whose diets are constructed on a basis of calculated rather than experimentally determined caloric requirement, may actually be fasting though the degree of under-nutrition may be mild. Continued, however, over a long period of time, such diet will influence the course of the diabetes, in that carbohydrate tolerance will tend to improve regardless of the "Insulin" administered. In addition there is a difficulty in determining exactly how much food patients are receiving. The composition of food other than dairy products varies widely and patients may be receiving as much as 25% either more or less of carbohydrate than is intended. The presence of acidosis is accompanied by an increase in the basal metabolic rate and calculated diets may fall short of the needs of the individual and result in fasting. "Insulin," moreover, improves the general attitude of the patient and increases muscular tone. This increases metabolism and if the diet remains the same, some degree of fasting will result.

The influence of different diets was investigated by comparing the ability of "basal" diets with those of the "ladder" or starvation type to render the urine sugar free. The records of five hundred diabetics, not treated by "Insulin," were investigated, two hundred and fifty were on the former and two hundred and fifty on the latter type of diet. It was found that the quantitative effects of basal diets continued over a long time could be measured approximately. The time taken to render a urine sugar free in these circumstances was largely dependent on deficiency in caloric value, in other words on the degree of fasting. Sixty-nine patients were observed, in the treatment of whom it was possible to reduce the doses of "Insulin" after varying intervals of time. They were divided into groups and subgroups according to whether they were in bed or walking about and whether or not they were suffering from acidosis. In each group was calculated the average number of days that elapsed before the "Insulin" could be reduced after the diets and doses of "Insulin" were moderately well regulated. The differences between the average values of the subgroups in each group were treated statistically and the probable errors determined. It was concluded that walking and acidosis were factors influencing the reduction of "Insulin." All the subjects were on basal diets and since walking and acidosis increase the basal metabolism, the subjects were fasting. Although it was found that basal diets, exercise or increased metabolism could account largely for reduction in the amount of "Insulin" taken, they did not appear to be the only influencing factors. Individuals in control groups in which exercise and acidosis were excluded, were also able to reduce the amounts of "Insulin" taken, but after a longer period of time. Rabinowitch is very cautious at this point in coming to definite conclusions. He states that "in explaining reduction in dosage of insulin after much longer periods (years) the influence of time upon recuperation of pancreatic function is to be considered." He admits that his investigation is incomplete, but justifies his communication on the grounds of his findings in regard to fasting, exercise and so forth. He has not advanced knowledge to any great extent, but he has shown that statistical methods are of value in work and that they produce results which tend to support clinical findings.

Abstracts from Current Medical Literature.

PÆDIATRICS.

Diagnosis of Pulmonary Tuberculosis.

A. BERGERON AND BOURGAREL (*La Presse Médicale*, August 31, 1927) discuss the bacteriological diagnosis of pulmonary tuberculosis in infants and young children. Owing to the difficulty in obtaining sputum from infants and young children the search for the tubercle bacillus is often neglected. Whenever tuberculosis is suspected in an infant, the stools should be examined for bacilli by the excellent method of Sergent, Venot and Moreau or the contents of the stomach, obtained by lavage, should be examined. The authors consider that in hospital it should be possible to train children or from five to fifteen years to expectorate into a vessel. If this is impossible, an attempt should be made in the early morning to obtain from the pharynx mucus which has collected during the night. This will frequently contain tubercle bacilli. The authors had under their care one hundred and five boys, aged from five to fifteen years, who gave the signs and symptoms of pulmonary tuberculosis. Of these children eighty-seven had been taught to expectorate into a vessel. Thirty-one of these had tubercle bacilli in their sputum. Eighteen other children were unable to expectorate. First thing in the morning mucus was collected from the pharynx of these boys. Eleven out of the eighteen had tubercle bacilli in this mucus. Besides the children with signs of active pulmonary tuberculosis, the authors had under their care one hundred and two boys with signs of tracheo-bronchial adenopathy. Nothing in these cases indicated that open pulmonary lesions were present. Following the same methods of examination tubercle bacilli were found in the expectoration of eight of these children.

Diphtheria in Infancy.

S. F. RAVENAL (*American Journal of Diseases of Children*, August, 1927) discusses diphtheria in infancy. Among two thousand four hundred consecutive patients admitted for diphtheria to the Cincinnnati General Hospital there were forty-nine infants under one year of age, an incidence of 2·04%. Fourteen of these forty-nine died, a mortality of 28·5%. The average mortality for all ages was 8%. The laryngeal type was particularly fatal, eleven out of seventeen infants dying. There was known exposure to diphtheria in only 20% of the cases. In most instances this exposure was intimate and prolonged. Pure nasal diphtheria was present in 42% and 64% had the nasal form alone or combined with other types. Primary nasal diphtheria occurred in only 18% of the infants over one year of age. The most common symptom was a sanguineous muco-purulent discharge, rarely profuse, but usually persistent. Nasal membrane was noted in only four instances. The course in the cases of the purely nasal form was uniformly mild and the infection responded almost immediately to antitoxin. The one death in twenty cases was due to a secondary empyema. In the cases in which the pharynx alone was involved, the usual symptoms were fever, restlessness and anorexia. Membrane was uniformly present on one or both tonsils. Although the patients with pharyngeal diphtheria were more seriously ill than those with the purely nasal form, in only three instances could the disease be classed as severe. The mortality among those with the laryngeal infection was 65%. The presence of a sanguineous rhinitis in six of these patients several days before the onset of laryngeal symptoms emphasizes the necessity for careful observation of any infant with a persistent nasal discharge. The average duration of symptoms before treatment in the cases of laryngeal infection was three and a half days, with an extreme of six days in two cases. The dosage of antitoxin given varied from 2,000 to 65,000 units, depending on the severity of the condition. The average dose was 10,000 units given intramuscularly. In some of the severe cases part of the dose was given by the intravenous and part by the intramuscular route.

Ultra-violet Radiation and Basal Metabolism.

M. E. FRIES (*American Journal of Diseases of Children*, August, 1927) reports on the effect of therapeutic doses of ultra-violet radiation on basal metabolism in children. In treating patients with ultra-violet rays it is of great importance to the medical practitioner to know what effect may be expected from such exposure. The increase in blood calcium and in phosphorus is well known. The general improvement in the patient's condition, such as increase in appetite, gain in weight and improved sleep, has been observed. Such changes have not been accounted for satisfactorily. The author undertook an investigation to determine whether the improvement could be ascribed to any change produced in the basal metabolism. The work was divided into two parts: the first to determine whether there was a rise in basal metabolism following therapeutic doses of ultra-violet radiation over a long period of time; the second, to discover whether there was an immediate rise in metabolism following each successive treatment. The children selected for study were those in whom there was moderate malnutrition or who were suffering from some minor ailment and who were willing to remain in hospital for the necessary period. One patient was in excellent health, but had a poor appetite, another was slightly under weight, while the third had a simple goitre. These children were admitted to hospital between the months of December and March, at which time the solar ultra-violet radiations were negligible and would not, therefore, interfere with the radiations from the lamp. After a control period of one month the children were exposed three times a week for a month to the ultra-violet rays from a mercury quartz lamp. The length of exposure was increased according to individual reaction. All the children became pigmented during the course of treatment. The basal metabolism was determined three times a week on alternate days at times varying from twenty to seventy hours. The patients were dismissed from hospital after one month's treatment and were asked to return in a month, when a final determination of the basal metabolism was made. During the same months two healthy children were studied in the out-patient department. The results of this study showed that the basal metabolism determinations did not vary more than 10%, a variation which comes well within the limit of error.

Constipation in Breast Fed Infants.

P. NEUROTH (*Wiener Medizinische Wochenschrift*, November 26, 1927) discusses the causation and treatment of constipation in breast fed infants. He considers that it is mainly due to a disturbance of the endocrine balance due to the labour. It is manifested chiefly as a temporary, functional hypothyreoidism in both mother and infant. To combat this he administers small doses of thyreoid extract to the mother for one week and claims that constipation in both mother and child is completely and permanently cured.

The Treatment of Pneumonia in Infants and Children.

E. A. RIESENFELD (*Archives of Pediatrics*, October, 1927) in discussing the treatment of bronchopneumonia and lobar pneumonia in infants and children, prophesies that in the near future it will be as reprehensible to keep a patient with pneumonia in the wards of a general hospital, as it is to keep a patient with small pox so confined today. The author pleads for a more careful discrimination between lobar pneumonia and bronchopneumonia. When Type I pneumococcus is determined, the specific serum should be given, but, as Types III and IV are present in about 50% of lobar pneumonia infections and as the time taken in determining the type is great, this method of treatment is impracticable. The exposure of the patient to cold air in bronchopneumonia is harmful. The increased number of cough paroxysms and the increase in moisture in the lung as determined by auscultation, are ample evidence of the irritation so induced. Moderately warm, fresh air is better. In lobar pneumonia, on the other hand, cold air may be beneficial, for practically no air enters the affected alveoli and the rest of the lung may be healthy. The author has never seen

the slightest benefit from the use of digitalis in the treatment of pneumonia in children and considers venesection of far greater value in the treatment of symptoms referable to the heart. Breast feeding should be maintained whenever possible. Cow's milk frequently causes tympanites in infants and its fat is apt to increase the acidosis which is present in almost all pneumonic infections. The author suggests protein milk for infants under one year. He deprecates the use of cough mixtures, but advises a timely, small dose of atropine in the presence of an abundant secretion. Warmer air, with a greater moisture content obtained from a steam kettle, will usually keep the bronchial tubes moderately dry. He advocates hydrotherapy for the control of fever and lumbar puncture for the condition of meningism. Oxygen, to be of use, must be given early, regularly for at least fifteen minutes out of every hour and applied with a padded mask directly over the face.

Phosphorus and Rickets.

G. MURDOCH (*Archives of Disease in Childhood*, October, 1927) has studied phosphorus absorption in a number of normal and rhachitic children. Four grammes of acid sodium phosphate dissolved in sixty cubic centimetres of water were given to eleven children; five of these were normal, four were actively rhachitic and two were suffering from rickets in the healing stage. The serum phosphorus concentration was determined immediately before and one, two and four hours after the ingestion of the acid sodium phosphate. The results showed that the absorption of phosphorus was the same in healthy children and in those with active rickets and greater in those with healing rickets. Another series of children, some normal and some rhachitic, were fed with varying proportions of phosphorus and calcium. The addition of calcium to the diet induced a fall in the serum phosphorus; this phenomenon was more pronounced in the rhachitic children. The author deduces from other experiments that there is an excess of calcium in the fæces in rickets owing to defective absorption. Phosphorus is combined with calcium to form an insoluble phosphate; therefore an excess of calcium, whether from increased intake or defective absorption, is equivalent in effect to a diminished supply of phosphorus.

Acute Osteomyelitis in Children.

O. HÜBLER (*Wiener Medizinische Wochenschrift*, October 27, 1927) reviews 232 cases of acute osteomyelitis in infants and young children. The incidence was found to increase with each year to a maximum at thirteen years after which there was a rapid fall. This corresponds largely to the periods during which children are most likely to receive injuries while playing. There were 142 boys and 90 girls in the series. The effect of outdoor life is also seen in the seasonal incidence; 88 cases occurred during winter and 144 during the warmer months. The tibia and the femur were the primary sites of infection in nearly two-thirds, while multiple foci were noted in 30%. No skin lesion as the source of infection could be noted in more than half the children. Of the remainder trauma was noted in 77, furunculosis in 15, scarlet fever in two and enteric fever, pneumonia, influenza and erysipelas occurred each in one child. Infection of surrounding joints was always very serious; there were 12 deaths among 19 children with involvement of the hip joint. In the whole series there was a mortality of 26% and nearly one-third of the deaths were due to metastases. The highest mortality (40%) was associated with osteomyelitis of the pelvic bones. Nearly 80% of the deaths occurred within the first and second weeks of illness. Of 107 children who were investigated as regards end results, 90% manifested either ankylosis of joints or shortening of long bones. In regard to treatment the author advocates incision and drainage in acute cases followed later by removal of sequestra after radiological examination. He had no success with intravenous injections of silver salts or urotropin in septic cases. "Omnadin" has been used with moderate success in eleven instances.

The Underfeeding of Infants.

D. PATERSON AND A. MARR-GEDDES (*Archives of Disease in Childhood*, October, 1927) set themselves to prove that in hospital practice the vast majority of infants about whom advice is sought on account of gastric symptoms and failure to gain in weight, are underfed. They investigated the condition of one hundred children brought to the out-patient department of the Hospital for Sick Children, Great Ormond Street, in 1926 and 1927. All were infants under the age of six months; fifty were breast fed and fifty were artificially fed. In the breast fed group twenty-eight were underfed. When complementary feeds were given to these children, they lost their symptoms and gained on an average thirty-one grammes (eleven ounces) a week. There was only one overfed child in the group. The underfed infant, being left at the breast longer than is necessary, tends to swallow air. This accounts for the three chief symptoms apart from failure to gain, namely, vomiting, screaming and frequency of defæcation. Four children were subject to rumination and treatment by giving thickened feeds was strikingly successful. In the artificially fed group twenty-seven were regarded as receiving food of insufficient caloric value, the food of sixteen of these was deficient chiefly in carbohydrates and four were underfed as far as carbohydrate only was concerned. Only two in this group were overfed. In the treatment of those who were receiving an insufficient number of calories, an increase in quantity proved successful. The addition of extra carbohydrates in the form of sugar or starchy food to the food of the others produced satisfactory results.

Genito-urinary Symptoms in Children.

F. J. POYNTON AND W. P. H. SHELDON (*Archives of Disease in Childhood*, October, 1927) have collected records of a number of cases of dilatation of the bladder and ureter in children. They carried out careful investigations on five children in the Hospital for Sick Children, Great Ormond Street, who presented symptoms either of intractable enuresis or of chronic infection of the urinary tract. Three *post mortem* examinations were made and the *post mortem* records of other similar cases were studied. The authors describe the following groups of conditions: (i) Hypertrophy and dilatation of the bladder with dilatation of both ureters, resulting from some obvious obstruction in the bladder or urethra; (ii) hypertrophy and dilatation of the bladder with dilatation of both ureters, without any obvious obstruction; (iii) a normal bladder with dilatation of one or both ureters due to some obvious obstruction in the ureters; (iv) a normal bladder with dilatation of one or both ureters without obvious cause for the dilatation. At the *post mortem* examination in one case which was placed in Group II, a valvular obstruction was found in the prostatic part of the urethra. This could not have been discovered except by dissecting the bladder and urethra in continuity and passing a probe down from the bladder. The authors believe that similar conditions which could be easily missed, may account for many so-called idiopathic conditions. The majority of cases falling into Group II may in their opinion be due to some undiscovered mechanical obstruction. Likewise they affirm that in all specimens of Group IV that they have examined, there has been some form of congenital or acquired organic obstruction sufficient to account for the dilatation. They conclude that in most of these cases there is a definite organic obstruction rather than a primary disturbance of function.

Idiopathic Aplastic Anæmia.

J. W. BRUCE (*Archives of Pediatrics*, October, 1927) reports a case of idiopathic aplastic anæmia occurring in a child, aged two years. A month before the child was brought for examination, his parents noticed that he was pale and that black and blue spots appeared all over his body. He seemed quite well otherwise and was a well nourished, active child. The liver and spleen were enlarged and the superficial lymphatic glands were palpable and hard, but not enlarged. The erythrocytes numbered 1,860,000 per cubic millimetre, the hæmoglobin value was 35%, the leucocytes numbered 6,600 per cubic millimetre and

the percentage of small lymphocytes was 96. No platelets were seen. The clotting time was five minutes and the bleeding time was fifteen minutes. No clot retraction took place after the blood had been for two days in the ice box. The patient's temperature, pulse rate and respiratory rate increased. He received several transfusions of blood, but died a few weeks after examination of terminal acidosis. No cause was found for the fever. The author regards the condition as one of idiopathic aplastic anæmia. In discussing the differential diagnosis the author points out that in idiopathic *purpura hæmorrhagica* there would probably be a regenerative blood picture with nucleated red cells and leucocytosis especially of polymorphonuclear cells. In the aleuchæmic stage of acute lymphatic leuchæmia there should be at least a few of the characteristic large, pale-staining cells and some enlargement of the superficial lymphatic glands. No primary condition was found to which the aplasia might have been secondary.

Interstitial Pneumonia.

H. HERMAN AND P. COHEN (*Archives of Pediatrics*, November, 1927) call attention to a clinical syndrome frequently met with by them. It consists of dulness over one or both lower lobes of the lungs, diminished breathing, cough and low grade persistent fever. *Râles*, bronchial breathing and changes in vocal resonance are conspicuous by their absence. This syndrome is frequently found in children as a complication of or a sequel to influenza, measles, pertussis, scarlet fever and other respiratory infections. From their studies the authors conclude that it is due to a peri-bronchial infiltration caused by a streptococcus; in other words it is a type of interstitial pneumonia.

Behaviour in the New-Born.

L. TAYLER-JONES (*The American Journal of the Medical Sciences*, September, 1927) reports a study of seventy-five healthy new-born babies to ascertain their mental equipment. The conclusions after subjecting each child to certain neuro-muscular tests are to the effect that studies of the reactions to external stimuli even at one day old, may be of value in the estimation of the mental capacity of the individual and that sufficient information may be derived to make a reliable prognosis of the future development. All the special senses may be used immediately after birth. Babies at birth have individuality and personality. The formation of habits and character begins on the first day of life.

ORTHOPÆDIC SURGERY.

Caecal Stasis and Arthritis.

REA SMITH (*Journal of Bone and Joint Surgery*, January, 1928) finds that surgical measures directed towards relief of caecal stasis are frequently needed in the treatment of chronic arthritis. The division of peritoneal adhesions on the lateral side of the caecum and the interposition of omental grafts in the resulting hiatus are frequently accompanied by improved physiological response in the caecal wall. The author also investigates any other ordinary sources of focal infection and pays particular attention to the diet of these patients in the after-treatment. Patients with putrefactive changes in the bowel receive non-protein diet together with paraffin oil, acidophilus milk, iron, arsenic and strychnine and hydrochloric acid, if needed. When the fermentative element predominates he gives milk diet and paraffin oil and the condition of patients so affected clears up more quickly than the putrefactive changes of others. The author's orthopædic colleagues emphasize the fact that they can do any operation on these joints without reaction. The author holds that the part played by the amœba in the causation of chronic arthritis is only incidental to the caecal stasis. When putrefaction is present, the necessary protein is furnished by amœbæ. Their deleterious effects disappear after relief of the caecal stasis.

Sacro-iliac Subluxation.

H. HOYT COX (*Surgery, Gynecology and Obstetrics*, November, 1927) states that sacro-iliac subluxation is a painful condition characterized by a definite displacement of the sacro-iliac joint with injury or faulty posture as ætiological factors. The condition is usually unilateral and is probably the cause of the great majority of backaches. There are two distinct types: (i) That due to definite injury and (ii) that due to faulty posture. In the first type the onset is sudden and the symptoms are of an acute nature. In the second type the symptoms are of slow onset and referred pains do not develope for some little time. Occupation and as a rule lack of muscular pain are both concerned in the ætiology. The pain in the second type is at first due to muscular fatigue from attempts to support the weakened joint. Later, however, the pain is caused by displacement of the sacrum and iljum. Other contributory factors which must be considered are the relaxation which occurs during pregnancy and the presence of diseases such as infective arthritis, hypertrophic arthritis and rheumatoid arthritis. The author expresses the opinion that the fundamental pathological change is a forward slip of the ilium at the upper part of the joint away from the sacrum which remains stationary; the condition is usually unilateral. Backache usually unilateral, is a predominating symptom and referred pain down the leg on the affected side is more common in the chronic than in the acute forms, but developes at a later date. There is a definite prominence of the sacrum, rigidity of the spinal muscles is present, obliteration of the lumbar curve occurs, there is a lateral curvature of the spine away from the affected side and definite tenderness to pressure is noted over the affected joint; the patient usually assumes a stooping posture with the knees slightly flexed. Excessive adduction or inward rotation of the thigh produces pain, as also does compression of the crests of the ilia. In discussing treatment the author enunciates Gunn's rule, namely, that the extremity should be placed in the position which it occupied at the time of the dislocation and the force should be reversed. To carry this out he places the patient on the table face downwards, his weight being supported by the elbows and abdomen and his hands grasping the edge of the table securely. The surgeon, while standing on a box near the feet of the patient, firmly grasps his ankles and lifts his body clear of the table, the body being supported above by the elbows alone. It is held in this manner for several minutes, with the legs in abduction, strong steady traction being made on the affected leg; at the same time an assistant makes firm pressure over the sacrum. If the body is lifted up and down while the traction is being made, there is usually sudden relief as the bones slip into place and the lumbar curvature is in most instances restored at once. A firm support of adhesive tape is passed behind from the front of one great trochanter to the other. Where definite inflammation is present, diathermy given daily for about a month is a very useful measure. Where pain persists or a true sciatica is present Buck's extension on the affected side and rest in bed will usually hasten recovery and occasionally a plaster of Paris spica cast is needed for two to four weeks after reduction. In repeated recurrent subluxations, open operation with ivory pegs to immobilize the joint or a bone inlay for the same purpose, is occasionally necessary. In the presence of any inflammation due attention should be paid to the presence of focal infection and adequate measures should be taken for its removal.

Ramisection in Spastic Paralysis.

STEELE F. STEWART (*Journal of Bone and Joint Surgery*, October, 1927) briefly refers to the various methods of treating spastic paralysis and summarizes his own results following the operations of ramisection. From practical experience he concludes that muscular weakness is not modified directly to any great extent. Rigidity has been abolished or reduced in each of the twenty-seven patients reported in the paper. This is experienced subjectively and seen objectively. The older patients have described increased ease in doing things. Objectively, the flexed and pronated arm has given way to a more normal position following cervical ramisection. The patients have learned to pick up objects, to turn door-knobs and button

up clothes with the defective upper limb. In the leg, scissors gait has decreased and *equinus* has disappeared, the patients no longer drag their toes, except when contracture remains. Children learn to run who could not do so before. Coordination improves, as evidenced by patients who learn to write after operation. There is also improvement in equilibrium, as evidenced by walking alone, walking backwards, standing on one foot and hopping. The author points out that organic contractures are not relieved by ramisection, but involuntary movements are mitigated. Definite improvement in squint has occurred and three patients with known speech difficulty have shown improvement after the cervical operation. The less satisfactory results are due to remaining contractures, low intelligence, lack of cooperation and imperfect operation. The author states that in each operation all has been accomplished that was attempted and concludes that ramisection constitutes the most perfect method for certain spastic conditions that has yet been suggested. The paper is illustrated with photographs of foot prints and tables showing improvement in various patients and with specimens of improvement in writing.

Fractures of Metatarsal Bones by Indirect Violence.

ALEX G. R. FOULERTON AND GEORGE F. STEBBING (*The Lancet*, December 10, 1927) describe some cases of fracture of metatarsal bones by indirect violence and make special reference to avulsion fracture of the tubercle of the fifth metatarsal bone. This avulsion fracture in their experience is frequently caused by a sudden contraction of the *peroneus brevis* in a sudden and incoordinated muscular effort to avoid a fall and most frequently occurs when the foot is off the ground. As in other fractures in this region there is no crepitus, for the reason that the *peroneus brevis* draws the tubercle upwards and backwards. They describe fractures of other metatarsal bones which were apparently due to indirect violence and mention the views of Pfitzner. They lay stress on the need for rest in order to avoid delayed union.

New Operation for Drop-Foot.

C. LAMBRINUDI (*The British Journal of Surgery*, October, 1927) describes a new operation for drop-foot. He points out that the normal locking joint in *talipes equinus* is produced by the posterior tubercle of the *talus* coming into contact with the posterior margin of the tibia. This is a natural bone block. Consequently if the ankle joint remains locked in full *equinus* and the correction is made of the deformity to the joint below, the foot cannot drop any further. To accomplish this the subastragaloid joint is opened sufficiently to allow the foot to be dislocated inwards. The cartilage is then removed from the upper surface of the *os calcis* and the lower articular surface of the *talus* and a notch is made horizontally from side to side in the posterior inferior aspect of the scaphoid. Then the head of the *talus* is depressed to its utmost limit and the neck is sawn through. The foot is next dorsiflexed so that the cut surface of the neck of the *talus* lies on the upper surface of the *os calcis* and the sharp anterior margin fits into the notch made in the anterior surface of the scaphoid. The angle produced between the articular surface of the *os calcis* and the *talus* is now filled by a graft taken from the excised neck of the *talus*. Essential for the success of the operation is that there should be power in the calf muscles. The author has performed his operation nine times on patients varying between the ages of six and sixteen. It has been completely satisfactory in seven. The foot is set at an angle of 95° and the *gastrocnemius* acting even through a small range gives some spring to the gait. The first operation was performed fifteen months ago. The paper is illustrated with numerous photographs.

Tuberculosis and Köhler's Disease.

H. H. GREENWOOD (*The British Journal of Surgery*, October, 1927) gives the details of a case of Köhler's disease in which amputation was necessary because of subsequent infection. The disease was due to a blood borne infection by the pneumococcus. As soon as the condition was diagnosed, the foot and leg were put into plaster of Paris. The original swelling over the scaphoid became larger and fluctuations could be felt. Aspiration with a fine needle yielded pus. The whole ankle joint became swollen and free incisions were then necessary. About ten days later the disease had made further progress and rarefaction of the tarsal bones and definite necrosis of the *talus* appeared. No evidence of tubercle bacilli could be found in the pus, but many Gram-positive cocci were present. By cultivation *Staphylococcus aureus* was isolated. The condition did not improve and amputation became necessary. Examination of a section of the *os calcis* revealed infiltration with tuberculous granulation tissue and a secondary pyogenic infection. The authors contends that the diagnosis of Köhler's disease was justifiable and that the *Bacillus tuberculosis* produced a lesion indistinguishable from it.

Early Treatment of Congenital Deformities.

H. SPITZY (*Wiener Medizinische Wochenschrift*, December 3, 1927) makes an appeal for the early treatment of all congenital deformities. Growth in length and weight is greatest in the first year and most children have attained half their adult height by the third year. Therefore all congenital deformities, except those likely to be spontaneously corrected, should be treated early before the primary lesion becomes worse or secondary complications occur. Treatment should not be commenced before the child weighs at least three thousand grammes, is gaining weight normally and has no longer any risks from an unhealed cord. A patient with congenital torticollis, for example, if the condition is due to a birth injury, can be immediately placed in plaster in an over corrected position. If it be due to intrauterine scar formation the open operation should be done followed by two weeks in plaster. Congenital talipes can be cured in six to eight weeks by a bandage applied to the foot and leg immediately after birth. Congenital dislocation of the hip if seen early reacts well to appropriate treatment. Birth injuries of the arm are due mainly to contusion of the head of the humerus with hæmorrhage into the joint capsule. Less frequently there is separation of the epiphysis or a lesion of the cervical plexus. To prevent contracture of the muscles, especially the subscapularis, the arm should be placed in the abducted and externally rotated position and rapid recovery occurs, unless there is serious nerve injury. If recovery has not occurred within six months, an open operation on the cervical plexus must be performed. Similarly for spastic paralysis posture of the limbs and suitable splints applied early will prevent deformities and hasten convalescence.

Arthrodesis.

W. R. BRISTOW (*Proceedings of the Royal Society of Medicine*, November, 1927) considers that the main change in the practice of bone and joint surgery since 1912 is the frequent resort to arthrodesis. He gives as indications: (i) pain, (ii) loss of function with or without deformity. The latter may result from arthritis including tuberculosis, trauma or paralysis. The contraindication most often met with is fixation or loss of control of a neighbouring or corresponding joint. In his opinion the age of the patient is not a contraindication to arthrodesis. The true end results of tuberculosis of the knee or hip when conservative treatment is adopted are frankly bad. He considers that arthrodesis is preferable to osteotomy in an old tuberculous hip with deformity and fibrous ankylosis, because the deformity corrected by osteotomy relapses. Tuberculosis of the knee joint in children, when the bone is affected, should cause the surgeon to consider arthrodesis. He also emphasizes the value of arthrodesis in the treatment of painful joints following fractures, particularly malunited fractures about the ankle joint. In chronic painful arthritis of the hip severe pain with or without crippling deformity is an indication for operation. In paralytic deformities of the foot the operation of midtarsal subastragaloid arthrodesis of Dunn has stood the test of time and gives a good functioning foot.

British Medical Association News.

ANNUAL MEETING.

THE ANNUAL MEETING OF THE TASMANIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Royal Society's Rooms, Hobart, on February 18, 1928, DR. G. H. HOGG, the President, in the chair.

ANNUAL REPORT.

DR. A. L. GIBLIN, the Honorary Secretary, presented the annual report as follows:

During the year there were ten meetings of the Branch with an average attendance of 10·4 and fourteen meetings of the Council with an average attendance of six.

Clinical Work.

There has been an improvement in the amount of clinical work that has taken place at the meetings, compared with last year and the following members have read papers: Dr. G. H. Hogg (two papers), Dr. W. L. Crowther, Dr. J. H. Walch and cases of clinical interest were presented by Dr. T. Butler, Dr. F. W. Fay and Dr. J. H. Walch. There is still room for improvement as regards this side of the meetings.

The Medical Journal of Australia.

During the year the price of THE MEDICAL JOURNAL OF AUSTRALIA was increased from twenty shillings to twenty-five shillings per member *per annum* on account of the increased cost of publishing it.

Ethical and Other Matters.

Several important ethical questions have been decided and the system of postal voting for office-bearers has been declared invalid by the Branch's legal adviser on account of permission not having been obtained from the Home Council.

FINANCIAL STATEMENT.

DR. E. A. ROGERS, the Honorary Treasurer, presented the statement of receipts and expenditure for the year ended December 31, 1927.

THE NORTHERN DIVISION OF THE BRANCH.

DR. J. A. NEWELL, the Honorary Secretary of the Northern Division of the Branch, presented the annual report of the Division as follows:

The second annual meeting of the Northern Division of the Tasmanian Branch of the British Medical Association was held at the Launceston Public Hospital on February 28, 1927.

Office-Bearers.

The following office-bearers were elected:

Chairman: Dr. C. G. Thompson.
Vice-Chairman: Dr. L. O. Macnamara.
Honorary Treasurer: Dr. A. Pryde.
Honorary Secretary: Dr. J. A. Newell.
Honorary Auditor: Dr. W. K. McIntyre.
Executive Committee: Dr. G. E. Clemons, Dr. N. McColl, Dr. J. Ramsay.

Membership and Meetings.

The financial membership is at present 30. Monthly meetings of the Division were held during the year and have been devoted chiefly to clinical work. The average attendance at the meetings has been 11·2, which is considered satisfactory.

A considerable amount of interest was shown by members in the lectures and in the clinical material demonstrated and discussed at the monthly meetings among which were the following:

Lectures on work of the recent Congress by Dr. J. Ramsay, on abdominal pain in children by Dr. H. Stephens, on cholecystography by Dr. W. Holman, on tetanus by Dr. F. J. B. Drake, on pernicious anæmia by Dr. F. J. B. Drake, on tumour of the orbit by Dr. C. Craig, on œsophageal stricture by Dr. J. Ramsay, on national insurance by Senator Millen, on chronic renal disease by Dr. S. V. Sewell, on renal function by Dr. S. V. Sewell, on appendicitis and thyreoid disease by Mr. A. Newton, on gall bladder disease by Mr. A. Newton.

Many clinical cases and X ray films were shown and discussed.

Post-Graduate Work.

During the year the post-graduate work was continued. The gentlemen who visited us for that purpose were: Dr. H. D. Stephens, Honorary Surgeon to In-Patients, Children's Hospital, Melbourne, Dr. S. V. Sewell, Honorary Physician to In-Patients, Melbourne Hospital, and Mr. Alan Newton, M.S., F.R.C.S. (Eng.), Honorary Surgeon to In-Patients, Melbourne Hospital.

Dr. Stephens delivered two lectures on abdominal pain in children and gave two clinical demonstrations on diseases in children.

Dr. Sewell lectured on (*a*) renal function and (*b*) chronic renal disease and gave clinical demonstrations on nervous diseases and syphilitic aortitis.

Mr. Newton lectured on thyreoid disease, gall bladder disease and appendicitis and gave clinical demonstrations on operative technique.

The attendance of members at these lectures and demonstrations was very satisfactory. The members of the Division are deeply grateful to the gentlemen above

TASMANIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

STATEMENT OF RECEIPTS AND PAYMENTS FOR THE YEAR ENDED DECEMBER 31, 1927.

RECEIPTS.

	£	s.	d.
Balance as at January 1, 1927	57	16	0
Members' Subscriptions	329	1	0
Interest on Fixed Deposit with E. S. & A. Bank, Hobart	30	1	7
	£416	18	7

PAYMENTS.

	£	s.	d.
Remittance to London	99	16	7
THE MEDICAL JOURNAL OF AUSTRALIA	62	0	0
Rent of Rooms	20	0	0
Printing, Stationery, Stamps and Petty Expenses	29	5	11
Federal Committee Expenses	13	8	4
Legal Expenses	26	1	6
Furniture	19	9	6
Remittances to Northern Division	10	10	0
Balance	136	6	9
	£416	18	7

I have to report that I have audited the books and vouchers of the British Medical Association (Tasmanian Branch) for the year ended December 31, 1927, and the above is a correct statement of the Receipts and Payments for that period as shown by the Books.

C. A. BENNETTO, A.I.C.A.,
Auditor.

mentioned who sacrificed much of their time in coming from Melbourne for the purpose of communicating to their fellow practitioners in Tasmania their special knowledge in the subjects dealt with.

It is hoped to continue the post-graduate lectures in the coming year.

Anatomical Study.

Efforts are being made by the Division to establish facilities for anatomical study at the Launceston Public Hospital. It is expected that these efforts will be brought to a successful issue shortly.

PRESIDENT'S ADDRESS.

DR. G. H. HOGG then read his presidential address (see page 292).

OFFICE-BEARERS.

DR. G. H. HOGG said that he deeply regretted the fact that Dr. Gregory Sprott had intimated his inability to accept the position of President for the year 1928. He also explained that the method of voting for office-bearers for the ensuing year had not been in order. It was necessary to call for new nominations. In these circumstances it was necessary to adjourn the meeting.

NOMINATIONS AND ELECTIONS.

THE undermentioned have been elected members of the Victorian Branch of the British Medical Association:

Wood, Ian Jeffreys, M.B., B.S., 1927 (Univ. Melbourne), Melbourne Hospital.

Buttner, Friedrich Adalbert, L.R.C.P. *et* S. (Edinburgh), L.R.F.P.S. (Glasgow), 1927, Alexandra Avenue, South Yarra.

Medical Societies.

THE SYDNEY HOSPITAL CLINICAL SOCIETY.

A MEETING OF THE SYDNEY HOSPITAL CLINICAL SOCIETY was held at the Sydney Hospital on December 3, 1927, DR. A. W. HOLMES A COURT, the President, in the chair.

Subphrenic Hydatid Cyst.

DR. GEORGE BELL showed a male patient, aged eleven years, who had been admitted to hospital on October 20, 1927, complaining of having had a cold for three weeks prior to September 9, 1927. On this date he had suffered from hæmoptysis. A further slight hæmoptysis had occurred on September 10 and on September 14 another slight attack had taken place, to be followed on October 6 by a severe hæmoptysis. Since this date he had been coughing up blood-stained mucus at intervals. He had no recollection of having seen any "grape skins." He did not feel weak, did not suffer from night sweats and prior to September 9, 1927, had not suffered from hæmoptysis. At the age of three years he had suffered from measles and from whooping cough at the age of five. He had undergone no surgical operations. His temperature on admission had been 37° C. (98·6° F.), the pulse rate 120 and the respiratory rate 20 in the minute. On examination the tonsils had not appeared to be enlarged and no abnormality had been found on the left side of the chest. Dr. Bell pointed out that the right side of the chest moved less than the left. Vocal fremitus was diminished. The percussion note varied from a slight dulness in the second intercostal space to obvious dulness in the third space and lower down absolute dulness was present. The dulness on the posterior aspect corresponded to that in front. The breath sounds were diminished, slightly in the upper portion and greatly over the lower portion of dull area. A few scattered crepitations were heard. No tenderness was present on percussion. No prominent veins were seen on the chest and there was no œdema.

The cardiac dulness was abnormal, the apex beat was five centimetres (two inches) from the middle line, the heart sounds were clear and there were no accompaniments. The teeth were moderately good, the tongue was clean, the abdomen was soft and no tender areas were discovered by palpation. Examination of the nervous system revealed that the knee jerks were present; the pupils were equal, moderate in size and reacted to light and accommodation. No tender areas were found in the genito-urinary system. The urine was normal.

On X ray examination pleural thickening had been discovered over the right apex and base. On further examination with the fluoroscopic screen pleural thickening had been found with pleural cardiac adhesions dragging the heart to the right. Some elevation of the right side of the diaphragm had been apparent and the radiographer had reported that the presence of a subphrenic hydatid cyst could not be excluded. No reaction had occurred to the von Pirquet test.

An examination of the blood had been made on October 20, 1927, and the following findings had been reported:

Erythrocytes, per cubic millimetre	5,100,000
Hæmoglobin value	75%
Colour index	0·7
Leucocytes, per cubic millimetre	14,800
Neutrophile cells	59%
Lymphocytes	37%
Eosinophile cells	2%
Monocytes	2%

Two hundred white cells had been counted. The red cells had been slightly deficient in hæmoglobin, but otherwise normal. The leucocytes had been normal in character.

A reaction had been obtained to the Casoni test on October 22, 1927, and on October 26 a complete positive result had been obtained with the complement deviation test and both the precipitin test and the Casoni test had yielded reactions.

DR. ARCHIE ASPINALL advised exploratory needling.

DR. C. E. CORLETTE advised operation for hydatid cyst above the liver by the transpleural route.

Achlorhydria.

DR. R. C. WINN showed a female patient, aged thirty-three years, who had first consulted him at the Regent Street Dispensary on May 17, 1926, complaining of pain in the back which was worse on movement. On May 30, 1926, she had complained of ulcers of the mouth which she said had appeared at irregular intervals for years. As her tongue had had a somewhat glazed appearance, a fractional test meal had been given. As complete achlorhydria had been reported, an exhaustive investigation as to its cause had been undertaken. The presence of sprue had seemed very unlikely, but early pernicious anæmia had been a possibility. The erythrocytes had numbered 4,400,000 per cubic millimetre and the colour index had been 0·6 and no abnormality pointing to pernicious anæmia had been discovered. No response had been obtained to the Van den Bergh test and there had been no signs of subacute combined degeneration of the cord. No reaction had been obtained to the Wassermann test and no spirochætes of syphilis or of Vincent had been found in the ulcers. On July 19, 1926, she had complained of pain in the elbows and wrists which was worse on movement. On October 29, 1926, the patient had been sent to Dr. George Willcocks who thought that the pain in the back was due to spondylitis. Dr. Willcocks had suggested X ray examination, but this had yielded no positive evidence of arthritic change. In July, the test meal had been repeated, achlorhydria had still been present and the presence of lactic acid had been reported. X ray examination of the stomach had been made and the only abnormality found had been considerable duodenal irritation. The patient's son and daughter, aged seven and ten years respectively, had been found to yield normal test meal curves. The daughter had suffered from "hæmorrhage from the bowels" two years previously. The patient had had no other symptoms than those mentioned.

Dr. Winn pointed out that the patient's mouth was normal. She had taken hydrochloric acid since the discovery of the achlorhydria. Fowler's solution had been applied to the ulcers and *mistura ferri arsenicalis cum strychnina* had been prescribed for many months. The pain in the back had been relieved by diathermy administered under the observation of Dr. Hoets. From this description it was obvious that pernicious anæmia might be eliminated as a cause. The presence of lactic acid might favour carcinoma of the stomach, but lactic acid might be found according to Dr. Wardlaw whenever hydrochloric acid was absent. Clinically such a diagnosis would not be made, as the patient was rather obese and manifested continuous improvement in health. Chronic gastritis might lead to achlorhydria, but it was obviously absent. Dr. Winn said that he was left with a diagnosis of early rheumatoid arthritis and associated achlorhydria. In support of this there was the additional fact that the total chlorides were very low.

Lymphangiectases of the Skin.

DR. NORMAN PAUL showed a male patient, aged sixty years, a carpenter, who stated that he had suffered from swelling of the scrotum for ten years. Swelling of the leg had commenced in June, 1927, after the opening of an abscess. The patient stated that he had not suffered from venereal disease, that his blood had been tested and that it had failed to yield a reaction. He had been resident in Queensland for a period. Dr. Paul said that he showed the patient on account of the numerous small elastic swellings of the skin of the scrotum, namely, lymphangiectases or dilatations of the terminal lymphatics, this being but a portion of the more extensive subcutaneous and cutaneous lymphatic involvement. The blood was to be examined for filariæ.

Possible Filariasis.

DR. J. G. HUNTER showed a girl, aged twelve years, who complained that her right leg had begun to swell in August, 1925, and in one week had reached a large size. It had not altered since that time. There was neither pain nor tenderness and the patient had no difficulty in walking. At intervals of one to two months the patient got a painful lump in the groin and the swelling lasted for one to two days. At the time of the appearance of the lump the patient felt ill and had attacks of vomiting; the temperature became raised, but in the intervals between attacks the patient felt quite well and experienced no discomfort whatever. No other abnormality was present. On examination the right leg was definitely increased in circumference from the toes to the knee; it was 3·1 centimetres (one and a quarter inches) larger than the left leg. The skin was thickened and no pitting occurred on pressure. The swelling did not extend above the knee and no glands were palpable. The other systems were clear. Repeated examinations for filaria had been fruitless, though the patient, who came from North Queensland, stated that the parasites had been found before she came to Sydney.

Volkmann's Contracture.

DR. C. E. CORLETTE showed a male patient who was suffering from Volkmann's contracture. Five months previously the patient had fallen from a train between it and the platform. He had fractured his right humerus. The radiologist at the time of the meeting reported the presence of a united fracture of the lower third of the humerus in malposition. The patient had been treated in a suburban hospital and apparently had been treated by the application of Middeldorff's splint for a week, a Jones's arm splint for two or three days and by a posterior gutter splint. He stated that the trouble had arisen after the application of the second splint. On examination movement at the elbow was quite good. There was a depressed scar on the anterior, lateral and posterior aspects of the upper part of the forearm. The scar was attached to the deeper structures. There was another superficial scar on the dorsum of the wrist. The electrical reactions had been tested. Above the scar all the nerves responded to the current. Below the scar the radial and ulnar nerves responded, but the median did not. The patient had wrist drop, flexion of all fingers and cyanosis of the hand. There was some disturbance of sensation, but this was not definite.

Skiagrams.

DR. G. J. and DR. W. A. EDWARDS gave a demonstration of some interesting skiagrams. They demonstrated various forms of gastric ulcer and in one film showed the appendix situated along the posterior aspect of the ascending colon. They also showed gall bladders containing calculi and a normal gall bladder full of dye.

PUBLIC MEDICAL OFFICERS' ASSOCIATION.

THE first annual meeting of the Public Medical Officers' Association was held in the B.M.A. Building, 30 to 34, Elizabeth Street, Sydney, on January 30, 1928, DR. A. A. PALMER, the President, in the chair.

Annual Report.

The annual report of the Committee for the year 1927 was read and adopted as follows:

In presenting this the first annual report of the Public Medical Officers' Association we wish to refer briefly to the formation of the Association.

After much preliminary consideration the Association first came into being at the inaugural meeting held on Wednesday, September 22, 1926, at which approximately sixty prospective members were present.

At a general meeting held on December 15, 1926, the rules which had been drafted by a committee, were discussed, amended and adopted.

On January 12, 1927, the first annual general meeting was held in the B.M.A. Building and officers for the ensuing year were elected and the nominations for the Committee announced.

Meetings of Committee.

The Committee has met officially on eight occasions and at other times informally for discussion of business. The attendances of representatives have been good.

Salaries Claim.

During the year the committee has given much attention to the drawing up of a claim for increased salaries. As the result of its work a schedule was drawn up embracing all branches of the activities of the public services and including all medical positions whether they are occupied by members of the Association or not.

The basis as arrived at by the Committee was discussed at a general meeting held on August 22, 1927, twenty-four members being present, and after discussion and amendment was adopted.

In October, 1927, the New South Wales Branch of the British Medical Association was approached with a view to obtaining official support for our claim and in November a letter was received from the Honorary Secretary stating that the matter had been laid before the Medical Politics Committee, that our claim had been endorsed and expressing their willingness to approach the Public Service Board as a separate delegation or in conjunction with representatives of our Association.

In deference to the wishes of the Public Service Board, your Committee decided to avail themselves of the written support of the New South Wales Branch of the British Medical Association only.

The claim was submitted to the Public Service Board in the form of a general statement and a schedule of salaries covering all medical positions.

Representatives of the Departments of Public Health, Mental Hospitals and Education Department appeared before the Board on January 17, 1928, when the claim was discussed generally.

The Public Service Board gave your representatives a sympathetic hearing and promised to meet them again during February.

The work of the Committee in drawing up a schedule of salaries has been difficult on account of the large and varied interests involved and it has been obliged to act without undue haste in order to arrive at a claim that would be equitable to all members of the Association and the authorities concerned.

The Association in spite of the short period of its existence can be said to be in a flourishing position and has justified its formation. At present there are on the register of the Association 75 members, of whom 55 are fully paid up for the year 1927.

From the Balance Sheet drawn up by the Honorary Treasurer and duly audited by the Honorary Auditor, you will see that the Association is in a sound financial position and at present there seems little likelihood of any heavy item of expenditure occurring.

With regret we bring to your notice that since the Association was formed three prominent medical officers have passed away, namely, Dr. Eustace Ferguson, Dr. C. W. Reed and Dr. Lee Brown. Two of these gentlemen were strong supporters of the Association.

During the year communications were sent to Dr. Jane Greig and Dr. J. Dale, both of Melbourne, with a view to a similar association being formed in Victoria and favourable answers have been received from them. Also, in answer to a request from this Association a communication has been received from the Society of Medical Officers of Health of Great Britain, raising the question of affiliation with their Association. This matter will require consideration by the incoming committee.

In conclusion, we wish to draw your notice to the kindness of the New South Wales Branch of the British Medical Association in allowing the use of their rooms both for general and committee meetings and also for the support given to this Association in their claims now before the Public Service Board.

Election of Office-Bearers.

The following were appointed office-bearers and members of the Committee for the ensuing year:

President: Dr. S. Evan Jones.

Honorary Treasurer: Dr. E. L. Morgan.

Honorary Secretary: Dr. H. H. Willis.

Honorary Auditor: Dr. J. A. L. Wallace.

Members of the Committee: Dr. E. S. Morris, Dr. J. S. Purdy, Dr. E. L. Morgan, Dr. S. Evan Jones, Dr. H. H. Nowland, Dr. N. B. Finlayson, Dr. H. H. Willis.

Post-Graduate Training.

The following motion was adopted after a full discussion:

That this Association is of the opinion that the establishment of post-graduate courses of instruction in medicine in Sydney is an urgent matter of the first importance.

The resolution was referred to the Committee for action to be taken.

Correspondence.

PATHOLOGICAL SERVICE.

SIR: I recently attended a man for lead poisoning, contracted at his work. He had been an in-patient of a public hospital, where he had had his urine examined for the presence of lead. Some weeks after his discharge from hospital and whilst convalescent at home, the medical officer of the insurance company paying his compensation allowance, suggested to the patient that he attend the Board of Health, Sydney, to have his urine examined for lead.

I told the patient it would be to his advantage and that it was a fair request that he should have the test, but showed him a Board of Health report which states:

> The Microbiological Laboratory is charged with pathological and bacteriological work in connexion with the identification, control, and prevention of disease in man. It undertakes work of this nature for the various public hospitals, and for the medical attendants of persons unable to afford fees for the carrying out of such work by private practitioners.

I pointed out that the patient was not for the purposes of this case "poor," but was potentially worth £50 so far as legitimate medical attention went, that is, the amount for which his employer would be liable under the *Workers' Compensation Act*. I rang the insurance company's doctor and suggested a private pathologist. The insurance doctor replied that he sent those sort of cases to the Board of Health, but agreed to my suggestion.

I telephoned an eminent pathologist in Macquarie Street, who telephoned the insurance company (which by the way is one of the strictest but fairest in its dealings with patient and doctor). This company told the private pathologist to carry on and guaranteed him payment of a satisfactory fee.

It interested me to note that the Macquarie Street pathologist stressed the fact that he thought my action in the matter was "so decent." When I said that it was the only action possible, he remarked that many other practitioners did not seem to bother.

Apparently general practitioners, surgeons, physicians, radiographers and other specialists are loyal to each other in matters affecting the *Workers' Compensation Act*, but the poor pathologist is forgotten.

I am indebted to the pathologists of the Board of Health for much kind work done for needy patients in my suburb. It is certainly unfair to load them with work for which insurance companies should pay. But incidentally why do they do any gratuitous work in these cases?

Lastly, I have always found that well-to-do patients and others were given their money's worth and much more from private pathologists whose fees do not rise in proportion to their skill, experience and reputation, as do the fees of surgeons, oculists and others.

I think a little reflection on the *Workers' Compensation Act* would do no harm.

I know of one practitioner who but recently realized that his compensation X ray cases should be sent to private radiographers and not to public hospitals.

Yours, etc.,

"TANTO SOSPIRERO."

February 24, 1928.

THE COLLEGE OF SURGEONS OF AUSTRALASIA.

SIR: Several facts seem to emerge from the momentous discussion *re* the College of Surgeons of Australasia at the meeting of the Victorian Branch of the British Medical Association on March 1. First, that there is widespread and deep misgiving concerning the constitution of the College as published in THE MEDICAL JOURNAL OF AUSTRALIA. Second, that the fears expressed were largely due to ignorance of the exact qualifications and methods by which an applicant may gain admittance. Third, that there was no opposition to the actual establishment of the College of Surgeons *per se*. Fourth, that the main stumbling block was clause (*c*) of the constitution which states that one of the objects of the College is to educate

the public to realize that the practice of surgery requires special training and ability, that is that those not so hall marked by the College should not practise surgery. It is asking too much of human nature, however eminent and respected the founders of the College are, to expect the profession to regard this clause with equanimity, untempered by suspicion.

To attempt to create a public discrimination in favour of an exclusive body of surgeon specialists, however justifiable on scientific grounds, must surely savour of the unethical even if effected indirectly.

A far greater check than the frowning disapproval of the august College, on a practitioner attempting surgery beyond his capabilities, lies in the reputation on which his practice depends. He cannot afford to make serious errors with patients he daily comes in contact with.

I venture to suggest, that if this offending clause was removed from the constitution and the exordium (as was a previous undesirable one) and an assurance given that there would be no direct or indirect interference with the work of the outside man, the other difficulties would automatically disappear and the College would receive the wholehearted support of the profession. The work of its Fellows would inevitably find its own high level and the general practitioner would call in a F.C.S.A. when necessary, with confidence in his integrity and special ability.

Yours, etc.,

R. M. SHAW.

"Caringa," Main Street,
Mordialloc, Victoria.
March 2, 1928.

RED-BACKED SPIDER BITE.

SIR: Dr. Hales, of Brewarrina, New South Wales, has recorded the after effects of red spider bite and has asked for help in explaining what happened. Having studied snake bite for over thirty-five years and tick bite for the last two years and incidentally spider bite, I beg to offer the following explanation of what took place in his patient's case.

The child was bitten by a red-backed spider. I have already pointed out in this journal that while many spiders are considered by the public to be venomous—the tarantulas for instance—that notion is an incorrect one. The researches of Kobert in 1901 showed that real poison was found in only two genera—*lathrodectes* and *arenea*. Hence our red-backed spider—an excellent description of which has recently been published by The Australian Museum—belongs to the *lathrodectes*, a group of spiders which is distributed over the whole globe. Kobert has shown that *lathrodectes* not only can inflict injury upon cattle, horses and camels, but these spiders can kill human beings.

As the spider concerned in this case belonged to the *lathrodectes* it was a poisonous one. Now after studying snake, tick and spider venoms, I have been able to draw up the following table which gives the active principles contained in the poisons of each one.

Snakes.	Ticks.	Spiders.
(*a*) Neurotoxin.	(*a*) Neurotoxin.	(*a*) Neurotoxin.
(*b*) Anticoagulin.	(*b*) Anticoagulin.	
(*c*) Hæmorrhagin.		
(*d*) Thrombase.		
(*e*) Hæmolysin.		(*e*) Hæmolysin.
(*f*) Digestive ferments.	(*f*) Digestive ferments	

With regard to the poison of the spider the active principle appears to be a neurotoxin and this injected into a subject is able to produce dyspnœa, convulsions and paralysis of the respiratory system and heart.

Thus spider poison has the same effect as tick poison, but spider and snake poison act rapidly; tick poison takes at least forty-eight hours to act. There are, however, preliminary signs and these take on the urticarial type. Now I regard the symptoms and signs related by Dr. Hales as due to the absorption of some of the poison and the results of symptoms that are usually associated with urticaria and angioneurotic œdema. The same thing occurs after tick bite and I have notes from a case recorded at the Board of Health when an adult was bitten by a tick and marked urticaria followed some three hours after.

Now why have the bites caused some trouble? I think the application of the ligature was the important step in treatment for the following reasons: When Charles Martin was investigating black snake venom at the University, I happened to be writing a paper with Professor Wilson on the scapula of the monotremes and so I almost daily spoke to Martin about snake venom. One day he came into the room where the Professor and I were dissecting the echidna and platypus and he said: "I have made a discovery, I have found that if you inject snake venom into a limb and immediately apply a tourniquet and leave it on for half an hour, that the animal will show no symptoms of poisoning. Evidently the juices of the tissue can attack a venom and render it innocuous." It will be noticed that the child was troubled in this way, but as some little time elapsed before the tourniquet was applied, probably some of the neurotoxin was absorbed.

I would suggest that in all cases when a subject is bitten by a snake or a spider that a tourniquet should be applied at once and left on for thirty minutes. The tourniquet must not be applied too tightly as it will cause much pain. As for the local treatment I would suggest the injection of chloride of gold, because it has given such splendid results after snake bite in India.

Yours, etc.,

W. J. STEWART MCKAY.

February 17, 1928.

A CORRECTION.

SIR: I have discovered an error in my paper "Observations on Calcium Deficiency as a Cause of Certain Diseases of Animals and Man," which appeared in the journal of February 18. On page 207, column 1, line 28, read 1 : 50 instead of 1 : 100.

The whole sentence should read—"Physical and physiological equilibrium rests at the point where the ratio of the monovalent to the divalent cations equals 1 : 50 (valence ratio of 1 : 100)."

Yours, etc.,

C. E. CORLETTE.

175 Macquarie Street.
February 24, 1928.

Naval and Military.

APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Numbers 3, 8 and 13 of January 12 and 26 and February 9, 1928.

AUSTRALIAN MILITARY FORCES.

First Military District.

Australian Army Medical Corps.

Major E. E. Brown, from the Australian Army Medical Corps Reserve, is appointed to command the 1st Cavalry Field Ambulance, 1st December, 1927, *vice* Major N. M. Gutteridge, who relinquishes the command on 30th

November, 1927. Major A. H. Powell, D.S.O., is appointed from the Australian Army Medical Corps Reserve and is supernumerary to the establishment of Majors with pay and allowances of Captain, 1st December, 1927. Honorary Captain A. D. A. Mayes is appointed from the Australian Army Medical Corps Reserve to be Captain (provisionally) supernumerary to the establishment pending absorption, 15th October, 1927. *To be Captain (provisionally)*—George Frederick Cherry, 9th December, 1927. Honorary Lieutenant C. B. Boddington is appointed from the Australian Army Medical Corps Reserve to be Lieutenant (provisionally) supernumerary to the establishment pending absorption, 18th October, 1927.

Australian Army Medical Corps Reserve.

Honorary Captain D. T. Smith is transferred from the Australian Army Medical Corps Reserve, 2nd Military District, 3rd December, 1927. The name of Honorary Captain David Thomas Smith in the records of the Australian Military Forces is amended to read David Thomas Rushton Smith.

Second Military District.

Australian Army Medical Corps.

Lieutenant-Colonel P. Fiaschi, O.B.E., V.D., from the Unattached List, is appointed to command the 9th Field Ambulance and is supernumerary to the establishment of Lieutenant-Colonels with pay and allowances of Major, 1st December, 1927, vice Lieutenant-Colonel W. L. Kirkwood, O.B.E., who relinquishes the command on 30th November, 1927, and is transferred to the Unattached List, 1st December, 1927. Captain (provisionally) C. W. Luscombe is transferred to the Australian Army Medical Corps Reserve as Honorary Captain, 9th December, 1927.

To be Captain (provisionally)—Robert James Jackson, 14th December, 1927. Captain C. A. Oxley is appointed from the Australian Army Medical Corps Reserve and to be Quartermaster and Honorary Captain, 14th December, 1927.

Australian Army Medical Corps Reserve.

Majors J. Morton and A. W. Campbell are placed upon the Retired List with permission to retain their ranks and wear the prescribed uniform, 1st January, 1928, and 18th January, 1928, respectively.

Third Military District.

Australian Army Medical Corps.

Captain J. W. Young is transferred to the Australian Army Medical Corps Reserve, 19th December, 1927.

To be Captain—Allan John Bothamley, 16th December, 1927; Captain J. K. D. Mackenzie is transferred (provisionally) from the Melbourne University Rifles, 4th Division, and is supernumerary to the establishment pending absorption, 2nd January, 1928.

Australian Army Medical Corps Reserve.

Captain J. R. Harris is placed upon the Retired List with permission to retain his rank and wear the prescribed uniform, 24th January, 1928; Honorary Captain P. J. Rockett is retired, 8th January, 1928.

Fourth Military District.

Australian Army Medical Corps.

To be Major.—Captain E. H. Lewis, 29th November, 1927.

The provisional transfer from the Melbourne University Rifles, 4th Division, of Captain J. K. D. Mackenzie is terminated, 1st January, 1928.

Fifth Military District.

Australian Army Medical Corps.

Captain F. J. Clark is transferred to the Australian Army Medical Corps Reserve, 13th January, 1928.

Australian Army Medical Corps Reserve.

To be Honorary Captain—Kenneth Horton Macfarlane, 13th December, 1927.

Obituary.

HEWLETT BRETON.

THE news of the death of Dr. Hewlett Breton which occurred on January 16, 1928, at Terana, Victoria, came as a shock to the people of his district and to a wide circle of friends.

Hewlett Breton was born at Hailsham, Sussex, England, on April 6, 1873. He received his early education at Felstead School, England. He was a prefect and a member of the school cricket team. At the age of eighteen he left Felstead and entered on the study of medicine at Saint George's Hospital, London. He obtained the dual qualification of Member of the Royal College of Surgeons and Licentiate of the Royal College of Physicians. After qualification he became Resident Medical Officer at the Cancer Hospital, Fulham Road, London, and later on he occupied the same position at Saint George's Infirmary, Fulham Road. He left England in 1902 and on arrival in Australia in 1902 settled at Terana. With the exception of one year spent in Melbourne he practised here until the time of his death. For many years he was health officer to the district and during the war he was accepted for home service and held the rank of Honorary Captain. He was a devoted husband and father, he was exceedingly musical and artistic and fond of reading. Reference is made to his social qualities by both Mr. William Osborne and Dr. T. W. Scott whose letters are appended. Hewlett Breton's place in Terana will be filled with difficulty.

Mr. William Osborne writes:

As an old and very intimate friend of the late Dr. Breton, it was my privilege to know him quite apart from his profession and also a great deal in his profession. In the latter he had one of those qualities that at once gave you confidence and his kindness and cleverness at the bedside will be dearly remembered by his many patients in this district. As a man Dr. Breton was, well I think when one says he was a white man, it expresses just what he was—a loyal friend, a clever and brilliant conversationalist on any subject and a genuine good sport. I have golfed with him, shot with him and fished with him; he was very keen on all sport and was a very finished golfer—in fact his perfect swing and style was the envy of all his golfing friends. A splendid field shot and like all genuine sportsmen he would prefer to see the setters working well in preference to over filling his bag. As an angler he was an adept and many the pleasant day I have spent in his company with rod and line, days that will always be bright spots in my memory. He was a great bird lover and although he was not a native of Australia, he knew more about our Australian birds than most Australians. Not only birds, but all animal life came in for a share of Dr. Breton's love. I always think that a man who is a good sportsman and a lover of animals is a pure white man and Dr. Breton was white all through. As a friend, well words cannot express just what his friendship meant and there are many in this district who will never forget and never let get cold the warm corner in their hearts for him. Speaking of his love of animals, here is an instance of how Dr. Breton endeared himself. A friend had a favourite spaniel which had badly fractured its shoulder, so bad that a veterinary surgeon in a neighbouring town advised its destruction. Dr. Breton heard and came along; he at once suggested that by placing the leg in a tube made of some plastic material and a splint brought up from this tube over the shoulder blade, that it might serve the purpose. Each day this generous and kind man would drop in to see how his dumb patient was progressing and the patient's little stumpy tail would wag at the sound of his voice. Eventually the treatment proved so effective that the spaniel has now only the slightest limp. But that is not all, even the dog knew what the doctor had done for him and no matter where it was, that dog on sight of his friend would race to him and show his gratitude by his doggy method of licking the hand that saved him from being a cripple. It is little acts like this that prove the man and whether it was human or animal, Dr. Breton's kindliness of heart

won him lasting love and friendships throughout the district. Dr. Breton was an extremely valuable man in public affairs and his opinion or advice carried great weight in matters for the advancement of the town or the good of the community. In his younger days he was a star singer of coster songs. He had evidently made a deep study of the Pearl Button King and his rendering of such songs as "The Little Nipper" and "My Old Dutch" was far and away more realistic and touching than that given by any of the professionals I have heard attempt the same class of song. If there was a call for charity concerts Dr. Breton's name was on the programme and it did not matter to him whether it be a Christy minstrel, a coster or the interpretation of one of the classic composers on the violin, on which instrument he was a high class performer, his whole heart was thrown into the movement. His painfully sudden death was a great shock to his friends and cast a gloom over the town and district. His cheery personality, extreme kindness and close and warm hearted friendship will for ever remain a bright spot in the lives of those who knew him best.

WILLIAM OSBORNE.

Dr. T. W. Scott, Torang, writes:

With apparently many years of useful work ahead of him, death claimed Hewlett Breton at the early age of fifty-three. His death came as a great blow to us all, for he had a great social personality that endeared him to his many friends and the generosity of his nature made him much beloved by his patients and the poor. His response to the call of what he thought to be his duty was such that he doubtless was another "medical martyr" who shortened his life by working when he should have rested himself back to health. I deeply regret the loss of a good colleague of over a quarter of a century.

T. W. SCOTT.

Books Received.

ADVICE TO THE EXPECTANT MOTHER ON THE CARE OF HER HEALTH, by F. J. Browne, M.D., D.Sc., F.R.C.S.E.; Second Edition; 1928. Edinburgh: E. and S. Livingstone. Crown 8vo., pp. 48. Price: 6d. net.

THE PRACTICAL MEDICINE SERIES, COMPRISING EIGHT VOLUMES ON THE YEAR'S PROGRESS IN MEDICINE AND SURGERY: Under the General Editorial Charge of Charles L. Mix, A.M., M.D.; The Eye, Ear, Nose and Throat; 1927. Chicago: The Year Book Publishers. Crown 8vo., pp. 526, with illustrations. Price: $2.50 net.

Diary for the Month.

MAR. 13.—Tasmanian Branch, B.M.A.: Branch.
MAR. 13.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
MAR. 19.—New South Wales Branch, B.M.A.: Organization and Science Committee.
MAR. 20.—Tasmanian Branch, B.M.A.: Council.
MAR. 20.—New South Wales Branch, B.M.A.: Medical Politics Committee.
MAR. 21.—Western Australian Branch, B.M.A.: Branch.
MAR. 21.—Section of Obstetrics and Gynæcology, New South Wales Branch, B.M.A.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xvi..

AUSTIN HOSPITAL FOR CHRONIC DISEASES, HEIDELBERG, VICTORIA: Junior Resident Medical Officer.
MARRICKVILLE DISTRICT HOSPITAL, SYDNEY: Medical Vacancies.
ROYAL HOSPITAL FOR WOMEN, PADDINGTON, SYDNEY: Night Sister.
ROYAL NORTH SHORE HOSPITAL OF SYDNEY: Resident Medical Officer.
THE WOMEN'S HOSPITAL, CROWN STREET, SYDNEY: Honorary Consulting Urologist.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney.	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester United Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association. Hospital or other appointments outside Victoria.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Members accepting appointments as medical officers of country hospitals in Queensland are advised to submit a copy of their agreement to the Council before signing. Brisbane United Friendly Society Institute. Stannary Hills Hospital.
SOUTH AUSTRALIAN: Secretary, 207, North Terrace, Adelaide.	All Contract Practice Appointments in South Australia. Booleroo Centre Medical Club.
WESTERN AUSTRALIAN: Honorary Secretary, 65, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

Medical practitioners are requested not to apply for appointments to positions at the Hobart General Hospital, Tasmania, without first having communicated with the Editor of THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

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